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ABSTRACT

This first volume in a two-volume series which contains training modules on the education of children and youth with dual sensory and multiple impairments focuses on training parents to be knowledgeable consumers of intervention strategies and educational services for their children. The four modules in this volume address the following areas: (1) characteristics and needs of children with dual sensory and multiple impairments; (2) facilitation of functional communication; (3) a functional approach to curriculum development; and (4) related services and the transdisciplinary approach to service delivery. A general introduction lists recommended trainer competencies and describes module format. Modules are intended to be presented in one to four 90-minute sessions. Each module consists of six sections: general information or overview, training instructions, one or more topic sections (depending on the breadth of coverage), sources of additional information, evaluation measures, and appendices. (DB)

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ED 360 758

# A SERIES OF TRAINING MODULES ON EDUCATING CHILDREN AND YOUTH WITH DUAL SENSORY AND MULTIPLE IMPAIRMENTS

Volume 1
Parent Training Modules
1990

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## Correction:

*The Winter, 1992 issue of the TRACES Newsletter, inadvertently omitted this teacher preparation program from the article, "Training Opportunities in Deaf-Blind Education."*

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Hunter College offers a Master of Science Program in Special Education with specialization in Severe/Multiple Disabilities Including Deaf-Blindness. This program prepares teachers to implement community referenced instruction for children and youth with severe disabilities including those with deaf-blindness. Graduates will be prepared to serve in a variety of roles including teaching in early intervention, public and private schools, hospital and clinic settings; work as curriculum specialists, group home managers or other supervisory positions. Stipends and tuition waivers may be available. Several awards are available for bilingual candidates.

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Teaching Research offers a series of Training Modules on educating children and youth with multiple impairments, who are deaf-blind. Edited by Mary Anketell. E.J. Bailey, Joan Houghton, Anne O'Dea, Bonnie Utley, and Donna Wickham

### Volume 1 - Parent Training Modules

The materials in this volume are designed for personnel who train parents and children of youth who are deaf-blind to be knowledgeable consumers of intervention strategies and educational services for their children. Contents include:

- Introduction to the population of children who are deaf-blind with multiple impairments.
- Facilitating functional communication.
- The functional approach to curriculum development.
- Related services and the transdisciplinary approach.

### Volume 2 - Service Provider Training Modules

The materials in this volume are designed for personnel who train service providers of children and youth who are deaf-blind. Contents include:

- Introduction to the population of children and youth who are deaf-blind with multiple impairments.
- Functional curriculum development and implementation.
- Communication skills development.
- Mediating challenging behaviors.
- Related services and the transdisciplinary approach.

**Cost:** Volume 1 $35.00
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**Contact:** Teaching Research Publications
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**A series of Training Modules on Education Children and Youth with Dual Sensory and Multiple Impairments**


2 **Parent Training Modules Overview**

3 **Introduction to the Population of Children and Youth with Dual Sensory and Multiple Impairments**

4 **Facilitating Functional Communication**

5 **The Functional Approach to Curriculum Development**

6 **Related Services and the Transdisciplinary Approach**

7

8


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## ACKNOWLEDGEMENTS

The development of these training modules was undertaken as a way to provide systematic training for parents and service providers of children and youth with dual sensory and multiple impairments.

A number of individuals contributed during the development process. Thanks are extended to members of the advisory committee for the Great Lakes Area Regional Center for Deaf-Blind Education. These individuals played a pivotal role during the conceptualization and design of this training endeavor. The advisory board members who guided this effort are Margaret Niederer, Charlie Crowley, and Virgil Krone of Illinois; Andy Papineau and Sheryl Beyers of Wisconsin; Bill Ohrtman, Don Sundell, and Donna Rhoades of Pennsylvania; and Joe Todd and Sue Schneider of Ohio. Two additional Title VI-C Coordinators were also instrumental during module development and testing. They are Karen Goehl from Indiana and Jerry Petroff from New Jersey .

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Personnel from the TASH-TA Project and the Great Lakes Area Regional Center carried out a number of tasks during development of these training modules. Specifically, staff from both projects identified key professionals in the field to author the modules, and then jointly organized and implemented module development with regard to format, final content, field testing, and evaluation measures. The final version of the modules includes suggestions from field test participants in states served by the Great Lakes Area Regional Center, as well as personnel from New Jersey and Indiana.

Requests for the training modules from within Ohio, Pennsylvania, and Wisconsin should be addressed to the Great Lakes Area Regional Center in Columbus, Ohio. Dissemination of the modules to states other than those listed above should be addressed to Teaching Research Publications in Monmouth, Oregon.

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# A SERIES OF TRAINING MODULES ON EDUCATION OF CHILDREN AND YOUTH WITH DUAL SENSORY AND MULTIPLE IMPAIRMENTS

## PARENT TRAINING MODULES

### I. Introduction

The materials contained in this volume are designed for personnel who train parents of children and youth with dual sensory impairments to be knowledgeable consumers of intervention strategies and educational services for their children.

This series of modules is organized as follows:

A. Introduction to the Population of Children and Youth with Dual Sensory and Multiple Impairments
B. Facilitating Functional Communication
C. The Functional Approach to Curriculum Development
D. Related Services and the Transdisciplinary Approach to Service Delivery

### II. Trainer Competencies

The modules serve as a guide for delivering specific information on a series of best practice content areas. They are intended for use by trainers competent in each respective content area. At a minimum, it is recommended that trainers meet the following criteria:

A. Demonstrated expertise (i.e., knowledge and experience) in the content area of the module being used.
B. Demonstrated abilities to deliver information using a multisensory approach to training.
C. Demonstrated abilities to facilitate group discussion.
D. Demonstrated competencies in using effective inservice training strategies.
E. Desire to be part of a systematic training effort as evidenced by thorough preparation and organization.
F. Demonstrated abilities to communicate clearly and effectively.
G. Demonstrated commitment to the philosophical orientation of best educational practices for children and youth with dual sensory and multiple impairments.

## III. Format of the Modules

Each module follows a consistent format and is comprised of six or more sections. The sections are listed below:

A. General Information - Overview
B. Training Instructions
C. One or More Topic Sections Depending on the Breadth of Coverage
D. Sources for Additional Information
E. Evaluation Measures
F. Appendices

A description of each section follows:

### A. General Information - Overview

This section includes a written statement regarding the purpose of the module, the intended audience, the level of training (e.g., awareness) and entry level skills for participants (if applicable). General outcome competencies are listed to help clarify the objectives of the training session, to serve as a framework for delivering the content, and to guide evaluation activities.

Additional information on time estimates per lecture, and the materials and equipment required for delivery of the module are included as well. This information is designed to assist potential trainers as they organize their presentations.

Special instructions for delivery of the module (e.g., limiting the use of professional jargon) is the final component of this section.

### B. Training Instructions

This section of the module describes three aspects of module delivery. A recommendation for adequate preparation is made with a reminder to review the suggested readings that served as the basis for modular content.

Suggestions regarding delivery of the module are described as well. The use of videotapes, overhead transparencies, and handouts is emphasized.

The last component of this section is a description of the "training tips." Training tips are found throughout the narrative of the modules and are designed to serve three functions. Those functions

are:

1. A reminder to display overhead transparencies and to distribute handouts as appropriate. Please note that all recommended overhead transparencies and handouts are found in the appendices for each module.

2. A reminder to pause when appropriate, ask for questions from the participants, and provide examples to supplement the narrative.

3. A reminder to initiate a small group training activity. The training activities are included in the module at the conclusion of each section of content.

**C. Content Sections**

Each of the modules contains one or more content sections depending on the breadth of coverage. Each content section also follows a specific format consisting of six or seven subsections. The subsections are described below:

1. Module delivery organization. This subsection lists the number of lectures, the amount of time required for delivery of the lectures, and the specific outcome competencies the participants are expected to gain from this content.

2. Content overview outline. This subsection lists an outline of the content.

3. Suggested readings for the trainer. This subsection consists of a list of the readings and other media that served as the basis for development of the modular content. It is recommended that the trainer obtain these resources and master the content prior to delivering the module. Many of the resources listed in this subsection are considered to be "classics "in the field of special education and provide the philosophical, and/or theoretical bases for the modular content.

4. Introduction to the content. This subsection is an outline of what the trainer should say and do to initiate delivery of the first lecture. This subsection includes a training tip regarding presentation of an overhead transparency that summarizes the outline of the content. This is designed to serve as an "advance organizer" for the participants and trainer.

5. Specific content. This subsection contains the actual modular content. The content may be in outline or narrative form depending upon the writing style of the module authors. Training tips are embedded throughout the specific content subsection.

6. Training activities. Each content section concludes with a subsection that contains one or more training activities. The training activities are designed to provide a balance between a lecture format and audience participation. Training activities may be conducted at the end of the lecture for this subsection, or may occur earlier as indicated by a training tip.

7. Scenarios/vignettes. Some content subsections contain one or more scenarios or vignettes. Typically, these are used as part of a training activity and contain detailed information about hypothetical cases involving children and youth with dual sensory impairments. Instructions for use of the scenarios/vignettes are included within the subsection, or may be found in the previous subsection titled, "Training Activities."

**D. Sources for Additional Information**

Each module contains an extensive list of resources that may be used to supplement the content area. The variety of resources include commercially available print media, publications from professional organizations, and videotapes available from state departments of education. The resource list contains the full reference for each document, the publisher's address and phone, as well as the approximate cost to rent or purchase the material.

**E. Evaluation Measures**

Each module contains one or more evaluation measures depending on the level of the training (i.e., awareness vs knowledge). Every module contains a "Participant Evaluation of Training" which is designed to serve as a consumer satisfaction measure. Each of several statements regarding the presentation are rated on a five-point scale by participants. Sample statements include: "I learned useful information about characteristics and types of communication as a result of this training", or "The training provided specific information that I can apply." The five-point scale ranges from "Strongly Disagree" (1 point) to "Strongly Agree" (5 points).

These specific statements about the training activity are supplemented by a series of open-ended questions that request participants to describe (in a short paragraph) the ways in which they see themselves using the training. Specifically, the strengths of the training, any follow-up needs identified through participation in this particular training session, and ways in which the module

and/or training activity could be improved are considered.

The content modules also include a pre/post evaluation measure. The pre/post evaluation was developed by module authors to serve as a measure of the effectiveness of the training session. The pre/post evaluations are objective tests and consist of a series of short-answer and multiple choice questions, as well as true/false statements. The length of time permitted to complete the test and the number of points per question are included. An answer key is provided as well.

F. **Appendices**

Each module concludes with one or more appendices. The first appendix contains printed pages that are designed to be made into overhead transparencies for use during presentation of the modular content. The second appendix consists of the handouts referred to in the narrative. The trainer should make copies of each handout available to all the participants.

# INTRODUCTION TO THE POPULATION OF CHILDREN AND YOUTH WITH DUAL SENSORY AND MULTIPLE IMPAIRMENTS

**Parent and Service Provider Training Module**

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*The Ohio State University*

*June Downing*
*University of Arizona*

*Donna Wickham*
*The University of Kansas*

**1990**

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## I. General Information - Overview

### A. Parent and Service Provider Training Module

An Introduction to the Population of Children and Youth with Dual Sensory and Multiple Impairments.

### B. Purpose of the Module

This training module provides an introduction to the population of children and youth identified with dual sensory and multiple impairments. This population is very heterogeneous resulting in the development of educational programs and approaches that vary depending upon the nature and severity of the impairments. The primary focus of this module is to provide a description of the population of children and youth identified with dual sensory impairments, who also have additional disabling conditions, such as mental retardation, physical impairments, and other health impairments.

### C. Intended Audience

This awareness level training module is designed for parents, family members, administrators and related services providers who may benefit from information about children and youth with dual sensory and multiple impairments. This module is also appropriate for paraprofessionals.

### D. Level of Training

Awareness

### E. Entry Level Skills or Prerequisites

Participation in this training session does not require any prerequisite or entry level skills.

### F. General Outcome Competencies

Participants will receive the following information:

1. The heterogeneity of the population of children and youth identified with dual sensory and

multiple impairments

2. The incidence of children and youth identified with dual sensory and multiple impairments

3. Implications of dual sensory and multiple impairments for the development of educational programs

4. History of service delivery to children and youth with dual sensory impairments

5. Resources for services to children and youth with dual sensory and multiple impairments

**G. Module Delivery Organization**

1. Number of Lectures: 1

2. Amount of Time: This training session is designed to precede the specific content modules for parents and service providers and should be completed in ninety minutes.

3. Materials and Equipment: The videotape, "Within Reach," a 1/2" VHS video player, and a TV monitor is required. The trainer will also require the use of an overhead projector. Additional audio-visual materials may be used at the trainer's discretion.

**H. Special Instructions**

The trainer should be sensitive when addressing disabling conditions of an individual by acknowledging the individual first and the disability second. For example, the trainer should use the reference "a child who is deaf-blind and has multiple impairments" rather than "a deaf-blind multihandicapped child." These two terms, "deaf-blindness" and "dual sensory impairments," are used interchangeably throughout the module.

## I. General Suggested Readings and Media for the Trainer

Sections of the content in the readings and media listed below served as a basis for the development of this module. The trainer should obtain these resources and master the material prior to delivering the module.


Blackman, J.A. (1983). *Medical aspects of developmental disabilities in children birth to three: A resource for special service providers in the educational setting.* Iowa City: University of Iowa, Department of Pediatrics, Division of Developmental Disabilities.

Bullis, M., & Bull, B. (1986). *Review of research on adolescents and adults with deaf-blindness.* Washington, DC: The Catholic University National Rehabilitation Information Center.

Fredericks, H. D., & Baldwin, V. L. (1987). Individuals with sensory impairments: Who are they? How are they educated? In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 3-12). Baltimore: Paul H. Brookes.

McInnis, J., & Treffry, J. (1982). *Deaf-blind infants and children: A developmental guide.* Toronto, Ontario: University of Toronto Press.

Orelove, F. P., & Sobsey, D. (1987). Sensory impairments. In F. P. Orelove & D. Sobsey (Eds.), *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 105-128). Baltimore: Paul H. Brookes.

Roberts, S., Helmstetter, E., Guess, D., Murphy-Herd, M., & Mulligan, M. (1984). Characteristics of persons who are deaf-blind. In S. Roberts, E. Helmstetter, D. Guess, M. Murphy-Herd, & M. Mulligan (Eds.), *Programming for students who are deaf and blind* (pp. 3-8). Lawrence: University of Kansas, Department of Special Education.

Stahlecker, I., Glass, L., & Machalow, S. (1984). *State-of-the-art: Research priorities in deaf-blindness.* San Francisco: Research and Training Center on Deafness and Mental Health.

TASH Technical Assistance Project and Oregon Department of Education (Producers)., Otis, M., & Brush, P. (Directors). (1987). *Within reach: Getting to know people who are deaf-blind* [Film]. Monmouth, OR: TASH Technical Assistance Project.

Walsh, S., & Holzberg, R. (1981). *Understanding and educating the deaf-blind/severely and profoundly handicapped: An international perspective.* Springfield, IL: Charles C. Thomas.

Writer, J. (1987). A movement-based approach to the education of students who are sensory impaired/multihandicapped. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 191-223). Baltimore: Paul H. Brookes.

## II. Training Instructions

### A. Trainer Preparation

It is recommended that the trainer read the suggested readings and view the recommended videotape prior to the training session. The trainer should be familiar with the outline and content of the module so the presentation is organized and cohesive.

### B. How to Deliver the Module

The module is written in outline form to provide a basic framework from which the trainer can deliver the content. The module is designed to be supplemented by a videotape and overhead transparencies as indicated in the appropriate sections. The trainer is encouraged to utilize additional audio-visual materials, such as slides, and to draw from personal experiences when appropriate. Also, participants may provide input based upon their experiences with children and youth who have dual sensory impairments. This module does not include a pre-post evaluation, but does include a participant satisfaction evaluation.

### C. Training Tips

Embedded within the text of this module are suggestions for ways in which the trainer can enhance participant attention and learning. These suggestions are typed in bold-faced italics and enclosed in a special bracket. Here is an example.

> ***Pause here and ask participants to share any questions they may have.***

## III. Content

### A. Introduction to the Module

***Introduce this session by announcing the title and displaying Overhead 1. Refer to it as you review topics with participants. Next you may want to say, "This session will cover the following topics:***

1. ***Description of the population of children and youth with dual sensory and multiple impairments***
2. ***Additional disabilities***
3. ***Factors that influence the effect of vision and hearing impairments on learning***
4. ***Incidence of children and youth with dual sensory and multiple impairments***
5. ***Causes (etiologies) of deaf-blindness***
6. ***Implications of dual sensory and multiple impairments for the development of educational programs***
7. ***History of service delivery to children and youth with dual sensory impairments***
8. ***Resources for services to children and youth with dual sensory and multiple impairments".***

### B. Population Description

1. Description of the Population of Children and Youth with Dual Sensory and Multiple Impairments

Very few children and youth identified as deaf-blind are reported as totally blind (e.g., no light perception) and severely hearing impaired (e.g., a greater than 81 dB loss). The majority of children and youth reported as deaf-blind do have some vision or hearing that can be used in daily functioning. Within the Great Lakes Region, the percentages of children and youth with dual sensory impairments who are identified as being totally blind and severely hearing impaired are 7% for Ohio, 7% for Pennsylvania, and 17% for Wisconsin. Typically, a person identified as deaf-blind has one sensory modality that is more intact than the other. Persons who are identified as deaf-blind may be classified into one of five categories that describe their dual sensory impairments. These are:

***Display Overhead 2 and refer to it as you review information with participants.***

a. visually impaired and hearing impaired with vision being the primary disability

b. visually impaired and hearing impaired with hearing being the primary disability

c. deaf and visually impaired

d. blind and hearing impaired

e. deaf and blind

***If participants are copying the information, wait until they have finished before you proceed.***

2. Additional Disabilities

Many children and youth identified as deaf-blind are reported to have additional disabling conditions. Within the Great Lakes Region, approximately 94% of the children and youth identified as deaf-blind are reported to have other disabilities as well. The most prevalent additional disabling condition is mental retardation. The presence of additional disabilities and the impact on the learning styles of children should be considered in educational planning efforts. Efforts should address the needs of the whole child.

3. Factors that Influence the Effect of Vision and Hearing Impairments on Learning

The impact that vision and hearing impairments have upon learning depends primarily on two factors. These factors are: a) the severity of hearing loss and visual impairment, and b) age at onset of loss.

***Display Overhead 3 as you discuss the following factors.***

a. The severity of hearing and visual impairments. Although a child or youth may be identified as deaf-blind, some useful vision or hearing may be present. When vision and hearing are present, it is important for the child to use these sensory skills (e.g., vision and hearing) efficiently. Systematic instruction is usually required to facilitate functional use of vision and hearing.

b. Age at onset of loss. Most people think of Helen Keller when they think of people who are deaf-blind; however, Helen Keller may not be representative of individuals with dual sensory impairments. Helen Keller was born with intact hearing and vision and lost those abilities at a later age. She had the advantage of developing some visual and auditory skills before she lost her vision and hearing. Children who are born with severely impaired vision and hearing do not have the same opportunity to learn through observation and imitation, and they may not respond to and interact with other people in the environment.

4. Incidence of Children and Youth with Dual Sensory and Multiple Impairments

Children and youth who are deaf-blind are identified and reported on an annual basis to the U.S. Department of Education, Office of Special Education Programs by single-state projects or multi-state deaf-blind centers. Children and youth who are deaf-blind are defined as having concomitant vision and hearing impairments resulting from pathology in the auditory and visual systems, or damage to the central nervous system which results in functional deaf-blindness (i.e., students demonstrate impaired responses to visual and auditory stimuli). Efforts have increased in recent years to identify children who function as if they are deaf-blind. Children considered functionally deaf-blind are typically so severely cognitively impaired that their visual and auditory acuity cannot be determined by conventional measures, or the children require adaptations in both auditory and visual input modes to benefit from instruction.

In the 1988-1989 Deaf-Blind[1] count, the Great Lakes Area Regional Center for Deaf-Blind Education reported 255 (.0013%) children and youth with deaf-blindness in Ohio, 128 (.0007%) in Pennsylvania, and 46 (.0007%) in Wisconsin. These incidence figures (in percentages) were obtained by dividing the number of children and youth identified as deaf-blind by the total number of individuals receiving special education services in each of the respective states.

***Display Overhead 4 to summarize this information about incidence.***
***Display Overhead 5 and discuss each etiology listed.***

5. Causes (Etiologies) of Deaf-Blindness

Etiologies listed below include only those conditions identified within the Great Lakes Area Regional Center for Deaf-Blind Education. Causes (or etiologies) of deaf-blindness reported were:

a. dysfunction of the central nervous system
b. CHARGE association
c. Usher's Syndrome
d. meningitis or encephalitis
e. congenital (maternal) rubella
f. cytomegalovirus (CMV)
g. various syndromes
h. other unknown etiologies

Additional etiologies associated with deaf-blindness include: syphilis, toxoplasmosis, and herpes simplex virus.

***Provide Handout 1 as a resource for further information on etiologies.***
***Show participants how to use this handout and ask if there are any questions.***

[1] Registry data from The Great Lakes Area Regional Center for Deaf-Blind Education is provided for a point of reference on the incidence of deaf-blindness.

## C. Implications of Dual Sensory and Multiple Impairments for the Development of Educational Programs

1. Medical and Functional Assessments to Evaluate Vision and Hearing

Comprehensive assessment information is important to the development of an appropriate educational program. Medical and functional assessments should be used if a child is suspected of having vision and hearing impairments. Each assessment serves a different function, but the information gathered from the two assessment processes combined provides a comprehensive view of the child's vision and hearing.

a. Medical assessments. Medical assessments provide information about the pathology of the child's vision and auditory deficits. These assessments are typically performed by medically trained otolaryngologists and ophthalmologists who may also recommend interventions (e.g., corrective lenses or hearing aids). Early routine vision and hearing screening is essential for identifying a child's vision and hearing losses. For a child with multiple impairments, standard or conventional assessments become much more difficult to conduct. For a child considered difficult to test, objective techniques such as evoked potential tests (e.g., visual or auditory) may be required.

***Provide an example of an evoked potential test (either visual or auditory) if available.***

b. Functional assessments. Functional vision and hearing assessments are integral components in planning the educational program for children with dual sensory impairments. Information should be obtained about distance vision, near vision, visual fields, and auditory acuity of children.

The most important outcome of a functional vision or hearing assessment is to determine how well a child uses their residual vision and hearing. The assessment provides insight into appropriate instructional techniques and adaptations that a child may require. After

completion of a functional assessment, visual or auditory aids may be introduced to enhance visual and auditory functioning (e.g., desk-mounted magnifier, reading stand, or auditory trainer). Children with multiple disabilities may not use their vision and hearing very efficiently and may benefit from systematic training in this regard.

***The videotape, "Within Reach" can be viewed at this time. The videotape includes discussions and demonstrations of teaching strategies, communication needs, and object schedules for teaching students with dual sensory impairments. It features several students with varied skills.***

***The audience will learn more from this videotape if you prepare them for this section of the presentation. You can do so in the following ways:***

1. ***Tell them how long it is.***
2. ***Give them "advance organizers." Describe the video and give them something specific to find.***
3. ***Provide them with a notetaking guide.***
4. ***Prepare at least two questions for a follow-up discussion.***

***The audience may enjoy a 10 minute break after viewing the videotape and participating in a discussion.***

2. Instructional Strategies

The development of a functional program for children and youth with dual sensory and multiple impairments should follow many of the best practice guidelines for children with severe disabilities. Characteristics of best practices apply to all aspects of service delivery. These characteristics include:

***Display Overhead 6. Discuss each item briefly and emphasize why each is important.***

a. a focus on functional skills

b. the use of age-appropriate materials

c. maximum integration with nondisabled peers

d. community-based instruction

e. the use of nonaversive behavior management strategies, if necessary

f. parent involvement, and

g. systematic, planned transition from school to adult environments

Limitations in the ability to organize and synthesize information through visual and auditory senses are primary characteristics affecting learning and development of children with dual sensory impairments. Since typical instructional strategies make use of visual and auditory stimuli, it may be necessary to modify instruction to meet the needs of children and youth who have dual sensory impairments.

***Display Overhead 7 and refer to it as each adaptation strategy is presented.***

a. Increasing discrimination ability for figure/ground differences. Many children and youth with dual sensory and multiple impairments have some residual hearing or vision. These children require functional vision or hearing training within meaningful activities and can benefit from increased visual or auditory input that may assist in the discrimination of appropriate cues from irrelevant background stimuli.

b. Tactile teaching. Tactile teaching requires the use of objects, tactile cues, and environmental cues that provide information rather than serve to emphasize typical visual and auditory cues. Touch provides children with considerable information, however it is only a "near" sense (i.e., no "distance" information can be obtained with tactile input).

***Provide an example of tactile teaching.***

c. Use of other senses. Development of the effective use of olfactory (i.e., smell) and gustatory (i. e., taste) stimuli should be taught based on behavioral principles rather than through passive stimulation. These senses provide valuable cues about activities and events that occur in home, school, and community environments of children.

***Provide an example of teaching through other senses.***

d. Selecting appropriate activities. Certain activities have little function for students with dual sensory impairments because they rely on visual and auditory input. The reinforcing qualities of activities should be analyzed to avoid the selection of those activities that children are unlikely to engage in as adults. Typical classroom and home routines should be analyzed for elements that provide movement (e.g., vestibular stimulation), interesting physical contact (e.g., touch), and other sensory input (e.g., gustatory and olfactory). As many of these elements should be incorporated into the instructional paradigm as appropriate.

***Provide an example of an instructional activity that includes reinforcing qualities appropriate for a student with dual sensory and multiple impairments.***

Children and youth with dual sensory and multiple impairments should be taught to participate in functional activities within natural environments. The limited visual and auditory information that children receive from environments require that teachers provide additional information through other sense modalities (e. g., primarily touch). All training activities should focus on skills that are critical for children to learn.

## D. History of Service Delivery to Children and Youth with Dual Sensory and Multiple Impairments

Prior to the large-scale rubella epidemic of 1964-1965, services to children and youth who were deaf-blind were minimal. The first educational program for a child who was deaf-blind was at Perkins School for the Blind, Watertown, Massachusetts. Later, residential programs were

developed in several locations across the country. Approximately eight specialized programs for children who were deaf-blind were established in institutions, but the majority of children and youth with dual sensory impairments were not served or educated on a systematic basis.

The rubella epidemic of 1964-1965 created the need to educate approximately 2,500 children with deaf-blindness. In 1968, the Federal Bureau of Education for The Handicapped (now the Office of Special Education Programs) established 16 regional deaf-blind centers that were primarily responsible for providing educational and special services to this population. In 1978, federal monies allocated for children and youth with deaf-blindness became available to single states (i.e., states could receive monies for children with deaf-blindness directly rather than through multi-state regional centers).

In 1975, Public Law 94-142 was signed. This law was passed to guarantee a free and appropriate education for all children, regardless of their disabling condition. The combination of multi-state regional centers, single-state programs, and Public Law 94-142 have resulted in a range of placement options for children with dual sensory and multiple impairments.

## E. Resources for Services to Children and Youth with Dual Sensory and Multiple Impairments

1. Multi-State Regional Centers and Single-State Programs

   Multi-State Regional Centers and Single-State Programs for children and youth with deaf-blindness are designed to provide the following:

   a. special education and related services, as well as vocational and transitional services to children and youth with deaf-blindness to whom states are not obligated to make available a free appropriate public education (e. g., children who are not yet school age)

***Distribute Handout 2. Refer to it as you review single-state projects and multi-state centers with participants.***

b. technical assistance to state educational agencies in building their capacity to serve children and youth with deaf-blindness

2. Technical Assistance Projects and Centers

Technical assistance projects and centers are designed to provide information, training, and technical assistance activities to individuals with dual sensory and multiple impairments, as well as their families who live in the United States and territories.

a. Teaching Research Assistance to Children and Youth Experiencing Sensory Impairments (TRACES). TRACES (formerly the TASH Technical Assistance Project) is a federally-funded project designed to provide technical assistance to single-state projects and multi-state centers that provide services to children and youth with dual sensory impairments. The project operates through one central and three regional offices. Services provided by each regional office include:

***Display Overhead 8 and refer to it as each service is reviewed.***

i. state system change (e. g., planning and implementation)

ii. inservice training

iii. on- or off-site consultation

iv. direct training for staff, parents, and administrators

v. information and materials search

vi. materials review and development

vii. identification of "best practice" training sites and activities

b. The Helen Keller Technical Assistance Center (HKNC-TAC). HKNC-TAC provides technical assistance to state education and other agencies to facilitate the transition of young adults with deaf-blindness, upon reaching the age of 22, from education to employment and other post-school services. Personnel from HKNC-TAC also provide inservice training to service providers and parents on the delivery of transition services to young adults with deaf-blindness.

***Distribute Handout 3 and refer to it as you describe centers and projects.***

## IV. Sources for Additional Information

Bullis, M., & Bull, B. (1986). *Review of research on adolescents and adults with deaf-blindness.* Silver Springs, MD: The Catholic University National Rehabilitation Information Center.

Publisher's address: The Catholic University National Rehabilitation Center
8455 Colesville Road, Suite 935
Silver Springs, MD 20910

Phone number: (800) 346-2742

Cost of Book: $5.00 (order #R39)

Fredericks, H. D., & Baldwin, V. (1987). Individuals with sensory impairments: Who are they? How are they educated? In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 3-12). Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O. Box 10624
Baltimore, MD 21285-0624

Phone number: (800) 638-3775

Cost of Book: $29.95

McInnis, J., & Treffry, J. (1982). *Deaf-blind infants and children: A developmental guide.* Toronto: University of Toronto Press.

Publisher's address: University of Toronto Press
63 A St. George Street
2nd Floor
Order Department
Toronto, Ontario, Canada M5S-1A6

Phone number: (416) 667-7791

Cost of Book: $27.50

Orelove, F. P., & Sobsey, D. (1987). *Educating children with multiple disabilities: A transdisciplinary approach.* Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O. Box 10624
Baltimore, MD 21285-0624
Phone number: (800) 638-3775
Cost of Book: $28.00

Teaching Research. (Producers). (1987). *Within reach: Getting to know people who are deaf-blind* [Videotape]. Monmouth, OR: Teaching Research.

Publisher's address: Teaching Research Publications
345 North Monmouth Avenue
Monmouth, OR 97361
Phone number: (503) 838-8817
Cost of Videotape: $10.00

Walsh, S., & Holzberg, R. (1981). *Understanding and educating the deaf-blind/severely and profoundly handicapped: An international perspective.* Springfield, IL: Charles C. Thomas.

Publisher's address: Charles C. Thomas Publishing Company
2600 South 1st Street
Springfield, IL 62794-9265
Phone number: (217) 789-8980
Cost of Book: $34.00

## V. Evaluation Measure

### A. Participant Satisfaction Evaluation

**A Series of Training Modules**
**on Educating Children and Youth**
**with Dual-Sensory and Multiple Impairments**

## Participant Evaluation of Training

**Introduction to the Population of Children and Youth with Dual Sensory and Multiple Impairments: Parent and Service Provider Training Module**

Trainer: _____ Date of Training: _____

Training Site: _____

Please read each of the following statements carefully and rate each statement using the following key:

| | | | |
|---|---|---|---|
| 1 = Strongly Disagree | (SD) | 4 = Agree | (A) |
| 2 = Disagree | (D) | 5 = Strongly Agree | (SA) |
| 3 = Undecided | (U) | | |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 1. | Overall, the content of this training met my expectations. | 1 | 2 | 3 | 4 | 5 |
| 2. | I learned useful information about the heterogeneity and incidence of children and youth identified with dual sensory and multiple impairments as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 3. | I learned useful information about implications for educational programs for children and youth with dual sensory and multiple impairments as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 4. | I learned useful information about the history of service delivery and resources for services to children and youth with dual sensory and multiple impairments as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 5. | The training provided specific information that I can apply. | 1 | 2 | 3 | 4 | 5 |
| 6. | The training content was applicable to my needs as a parent, family member, administrator, or service provider. | 1 | 2 | 3 | 4 | 5 |
| 7. | Materials available from this training were relevant and beneficial. | 1 | 2 | 3 | 4 | 5 |

8. What were the strengths of this training?

9. What follow-up needs can you identify for yourself?

10. In what ways could these training activities have been improved?

# Appendix A

## Overhead Transparencies

# CONTENT OUTLINE

1. Description of the Population of Children and Youth with Dual Sensory and Multiple Impairments

2. Additional Disabilities

3. Factors that Influence the Effect of Vision and Hearing Impairments on Learning

4. Incidence of Children and Youth with Dual Sensory Impairments

5. Causes (Etiologies) of Deaf-Blindness

6. Implications of Dual Sensory and Multiple Impairments for the Development of Educational Programs

7. History of Service Delivery to Children and Youth with Dual Sensory Impairments

8. Resources for Services to Children and Youth with Dual Sensory and Multiple Impairments

(Overhead 1)

# CATEGORIES OF VISION AND HEARING IMPAIRMENTS

1. Visually impaired and hearing impaired with vision being the primary disability

2. Visually impaired and hearing impaired with hearing being the primary disability

3. Deaf and visually impaired

4. Blind and hearing impaired

5. Deaf and Blind

From: Roberts, S., Helmstetter, E., Guess, D., Murphy-Herd, M., & Mulligan, M. (1984). *Programming for students who are deaf and blind.* Lawrence: University of Kansas, Department of Special Education.

(Overhead 2)

# FACTORS THAT INFLUENCE THE EFFECT OF VISION AND HEARING IMPAIRMENTS ON LEARNING

1. Severity of the impairment

2. Age at onset of loss

(Overhead 3)

# REPORTED INCIDENCE OF CHILDREN AND YOUTH WITH DEAF-BLINDNESS

| | | |
|---|---|---|
| Ohio | 255 | (.0013%) |
| Pennsylvania | 128 | (.0007%) |
| Wisconsin | 46 | (.0007%) |

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From Great Lakes Area Regional Center for Deaf-Blind Education, 1989-90.

(Overhead 4)

# CAUSES (OR ETIOLOGIES) OF DEAF-BLINDNESS

- Dysfunction of the Central Nervous System
- CHARGE Association
- Usher's Syndrome
- Meningitis or Encephalitis
- Rubella
- Cytomegalovirus (CMV)
- Various Syndromes
- Other Unknown Etiologies

NOTE The etiologies listed above were identified by child count personnel from the states included in the Great Lakes Area Regional Center for Deaf-Blind Education.

(Overhead 5)

# CHARACTERISTICS OF BEST PRACTICES

1. A focus on functional skills

2. The use of age-appropriate materials

3. Maximum integration with nondisabled peers

4. Community-based instruction

5. The use of nonaversive behavior management strategies, if necessary

6. Parent involvement

7. Systematic, planned transition from school to adult environments

(Overhead 6)

# ADAPTING FOR SENSORY LOSSES

1. Increasing discrimination ability in figure/ground differences

2. Tactile teaching

3. Use of other senses

4. Selecting appropriate activities

(Overhead 7)

# SERVICES PROVIDED BY TRACES (FORMERLY THE TASH TECHNICAL ASSISTANCE PROJECT)

1. State system change (e. g., planning and implementation)

2. Inservice training

3. On- or off-site consultation

4. Direct training for staff and administrators

5. Information and materials search

6. Materials review and development

7. Identification of "best practice" training sites and activities

(Overhead 8)

# Appendix B

## Handouts

## Etiologies of Deaf-Blindness
### Syndromes

| Etiology | Cause/ Incidence | Manifestations | | |
|---|---|---|---|---|
| | | Vision | Hearing | Other |
| CHARGE Association | Unknown | **C** for coloboma: lesion on the eye which can impair vision depending on location; present in 75% of people | **E** for ear anomalies/ deafness: mild to profound mixed loss bilaterally; chronic otitis media | **H** for heart disease; **A** for atresia: if bilateral-severe respiratory distress; if unilateral-constant nasal discharge; **R** for retarded growth: mild to severe mental retardation; **G** for genital hypoplasia: genital abnormalities in males |
| Usher's Syndrome | Genetic<br><br>1:20,000 people, 3-6% children born with hearing impairments have Usher's Syndrome; Types I-IV classifications are based upon the degree of sensory loss and cognitive functioning; accounts for 50% of deaf-blindness | Night blindness usually first symptom of retinitis pigmentosa, can occur as early as preschool; visual loss often not noticed until late childhood or adolescence | First symptom that is diagnosed; severe to moderately severe sensorineural loss; bilateral; greater loss in higher frequencies | |

## Etiologies of Deaf-Blindness
### Congenital Infections

| Etiology | Cause/ Incidence | Manifestations | | |
|---|---|---|---|---|
| | | Vision | Hearing | Other |
| Congenital Rubella | Mothers infected in first 6 weeks of pregnancy have babies with 2 or 3 of the following characteristics: cataracts, deafness, severe to clinically unapparent heart disease | Congenital cataracts are common, occur in 20-70% infants; pigmentary retinopathy; strabismus; glaucoma | Mild to profound sensorineural loss, unilateral or bilateral; audiograms-"belly-like" curves with greatest loss at 1,000 hz | Cardiac defects; microencephaly; meningo-encephalitis |
| Cytomegalo-virus, (CMV) | Asymptomatic infection | Blindness at birth, or progressive inflammation of eyes which can lead to blindness | Deafness | Microencephaly; seizures; mental retardation |
| Syphilis | Intrauterine infection or acquired during birth with contact of lesions in birth canal | Blindness at birth, or progressive inflammation of eyes which can lead to blindness | Deafness | Anemia; bone inflammation; mental retardation; skeletal anomalies; dental abnormalities |
| Toxoplasmosis | Parasite in raw meat or kitty litter; in pregnancy, parasite can cross placenta to fetus | Blindness at birth, or progressive inflammation of eyes which can lead to blindness | Deafness | Microencephaly; seizures; mental retardation |
| Herpes | Intrauterine infection contracted during passage through the birth canal of infected mother; .03 to .3 per thousand births | Disease of the retina, or moderate to severe visual impairment | Deafness at birth, or mild to profound hearing impairment | Microencephaly; encephalitis; seizures; mental retardation; central nervous system damage; periodic herpes skin rash |

## U.S. Department of Education
## Office of Special Education Programs
## Services for Children and Youth with Deaf-Blindness

### Multi-State Projects

These projects provide the following: (a) special education and related vocational, and transitional services to children and youth with dual sensory impairments to whom states are not obligated to make available a free appropriate public education under Part B of the Education of the Handicapped Act, and to whom the state is not providing those services under some other authority; and (b) technical assistance to state educational agencies to build the capacity to serve this population.

**Ohio**

PROJECT DIRECTOR/PROJECT COORDINATOR:
Kevin D. Arnold/Mary Anketell
Great Lakes Area Regional Center for Deaf-Blind Education
The Ohio State University
700 Ackerman Road, Suite 440
Columbus, OH 43202
(614) 447-0844

Ohio, Pennsylvania, Wisconsin

**Massachusetts**

PROJECT DIRECTOR:
Marianne Riggio/Lisa Jacobs
Perkins School for the Blind
Deaf-Blind Department
175 North Beacon Street
Watertown, MA 02172
(617) 924-3434

Connecticut, Maine, Massachusetts, New Hampshire

## Single State Projects

### Alabama

PROJECT DIRECTOR
Alabama Institute for Deaf-Blind
Sunbelt Regional Center
P.O. Box 698
Tallageda, AL 35160
(205) 761-3356

### Alaska

PROJECT DIRECTOR
Alaska Department of Education
Office for Exceptional Children
P.O. Box F
Juneau, AK 99811
(907) 465-2884

### Arizona

PROJECT DIRECTOR
Arizona School for Deaf and Blind
Arizona Diagnostic Treatment and Education Center
1200 West Speedway
Tucson, AZ 85703
(602) 628-5583

### Arkansas

ACTING STATE COORDINATOR
Arkansas Department of Education
# 4 Capital Mall, Room 105-C
Little Rock, AR 72201
(501) 682-4222

### California

PROJECT DIRECTOR
Department on Education
Division of Special Education
721 Capital Mall
Sacramento, CA 95814
(916) 323-4871

### Colorado

PROJECT DIRECTOR
Colorado Department of Education
Special Education Services Unit
201 East Colfax Avenue, Room 301
Denver, CO 80203
(303) 866-6707

### Commonwealth of NMI

PROJECT DIRECTOR
Commonwealth of Northern Mariana Islands
Lower Base
Saipan, CM 96950
(670) 322-9812

### Delaware

PROJECT DIRECTOR
Delaware Program for the Deaf-Blind
620 East Chestnut Hill Road
Newark, DE 19711
(302) 454-2305

### Florida

PROJECT DIRECTOR
Services of OSI Students
Florida State University
Carothers Hall, Room 209
Tallahassee, FL 32301
(904) 644-8420

### Georgia

PROJECT DIRECTOR
Georgia Department of Education
Division of Special Education
1454 Twin Towers East
Atlanta, GA 30334
(404) 656-2537

## Guam

PROJECT DIRECTOR
Guam Department of Special Education
P.O. Box DE
Agana, Guam 96910
(671) 472-8901, ext. 375

## Hawaii

PROJECT DIRECTOR
Office of Instructional Services
Special Needs Branch
3430 Leahi Avenue
Honolulu, HI 96815
(808) 737-3925

## Idaho

PROJECT DIRECTOR
University Affiliated Programs
College of Education
Moscow, ID 83843
(208) 885-6159

## Illinois

PROJECT DIRECTOR
Illinois State Board of Education
Department of Special Education
100 North First Street
Springfield, IL 62777-0001
(217) 782-6601

## Indiana

PROJECT DIRECTOR
Center for Interdisciplinary Studies in Special Education
Indiana State University
School of Education, Room 502
Terre Haute, IN 47809
(812) 237-2827

## Iowa

PROJECT DIRECTOR
Iowa Department of Special Education Division
Grimes State Office Building
Des Moines, IA 50319
(515) 281-3576

## Kansas

PROJECT DIRECTOR
Kansas State Department of Education
120 East 10th Street
Topeka, KS 66612
(913) 296-4952

## Kentucky

PROJECT DIRECTOR
University of Kentucky
229 Taylor Educational Building
Lexington, KY 40506
(606) 257-7909

## Louisiana

PROJECT DIRECTOR
Louisiana State Department of Education
Office of Special Education Services
P.O. Box 94064
Baton Rouge, LA 70804
(504) 342-0167

## Maryland

PROJECT DIRECTOR
Maryland State Department of Education
200 West Baltimore Street
Baltimore, MD 21201
(301) 333-2498

## Michigan

PROJECT DIRECTOR
Deaf-Blind Project
Michigan School for the Blind
715 West Willow
Lansing, MI 48913
(517) 334-6630

## Minnesota

PROJECT DIRECTOR
832 Capitol Square Building
550 Cedar Avenue
St. Paul, MN 55101
(612) 296-2548

## Mississippi

PROJECT DIRECTOR
Mississippi State Department of Education
Bureau of Special Education
P.O. Box 771
Jackson, MS 39205
(601) 359-3498

## Missouri

PROJECT COORDINATOR
Missouri School for the Blind
3815 Magnolia Avenue
St. Louis, MO 63110
(314) 773-3762

## Montana

PROJECT DIRECTOR
Office of Public Instruction
Bureau of Special Education
State Capitol
Helena, MT 59620
(405) 444-4426

## Nebraska

PROJECT DIRECTOR
Nebraska Department of Education
301 Centennial Mall South
P.O. Box 94987
Lincoln, NE 68509
(402) 471-2471

## Nevada

PROJECT DIRECTOR
Department of Curriculum and Instruction
University of Nevada-Reno
Reno, NV 89557
(702) 784-4961

## New Jersey

PROJECT DIRECTOR
Division of Special Education
New Jersey State Department of Education
225 West State Street
Trenton, NJ 08625
(609) 292-7602

## New Mexico

PROJECT DIRECTOR
State Department of Education
Special Education
Education Building
Santa Fe, NM 87501
(505) 827-6635

## New York

PROJECT DIRECTOR
New York State Department of Education
Room 1071 EBA
Washington Avenue
Albany, NY 12234
(518) 473-7597

## North Carolina

PROJECT DIRECTOR/COORDINATOR
North Carolina Department of Public Instruction
116 West Edenton Street
Education Building, Room 436
Raleigh, NC 27603
(919) 733-3004

## North Dakota

PROJECT DIRECTOR
ND Department of Public Instruction
Division of Special Education
State Capitol, 1st Floor
Bismarck, ND 58505
(701) 224-2277

## Oklahoma

PROJECT DIRECTOR
Oklahoma State Department of Education
2500 North Lincoln Boulevard
Oklahoma City, OK 73105
(405) 521-3351

## Oregon

PROJECT DIRECTOR
Oregon Department of Education
700 Pringle Parkway, SE
Salem, OR 97310
(503) 378-3136

## Puerto Rico

PROJECT DIRECTOR
Programma Ninos Sordo-Ciego
Ruiz Solera Hospital, Building A
Bayamon, PR 00619
(809) 782-8994

## Rhode Island

PROJECT DIRECTOR
Easter Seal Society of Rhode Island
Meeting Street School
667 Waterman Avenue
Providence, RI 02914
(401) 438-9500

## South Carolina

PROJECT DIRECTOR
South Carolina Department of Education
110 Executive Center Drive
Santee Building, Suite 210
Columbia, SC 29210
(803) 737-8710

## South Dakota

PROJECT DIRECTOR
South Dakota Department of Education
Elementary and Secondary Education
KNIEP Building
700 Governors Drive
Pierre, SD 57501
(605) 773-3678

## Tennessee

PROJECT DIRECTOR
Division of Special Education
132 Cordell Hull Building
Nashville, TN 37219

## Texas

PROJECT DIRECTOR/COORDINATOR
Texas Education Agency
Special Education Programs
1701 N. Congress Avenue
Austin, TX 78701
(512) 463-9734

## Utah

PROJECT DIRECTOR
Utah State Office of Education
c/o Utah Schools for Deaf & Blind
846 20th Street
Ogden, UT 84401
(801) 399-9631

## Vermont

PROJECT DIRECTOR
University of Vermont
Developmental Disabilities
499 C Waterman Building
Burlington, VT 05405
(802) 656-4031

## Virginia

PROJECT DIRECTOR
SPH-TAC
Mason University
4400 University Drive
Fairfax, VA 22030
(703) 993-3665

## Wyoming

PROJECT DIRECTOR
Wyoming State Department of Education
Hathaway Building, 2nd Floor
2300 Capitol Avenue
Cheyenne, WY 82002
(307) 777-6236

## Virgin Islands

PROJECT DIRECTOR
Department of Education
P.O. Box 44-46 Kongens Gade
Charlotte Amalie, St. Thomas, Austin, VI
00801
(809) 774-4399

## Washington

PROJECT DIRECTOR
Program Manager
WA State Program for Deaf-Blind Children
Educational Service District 121
12320 80th Avenue
Seattle, WA 98178
(206) 772-6937

**Washington, DC**

PROJECT DIRECTOR
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(Handout 3)

# FACILITATING FUNCTIONAL COMMUNICATION

**Parent Training Module**

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# I. General Information - Overview

## A. Parent Training Module

Facilitating Functional Communication

## B. Purpose of the Module

The purpose of this module is to provide parents and family members with knowledge and skills regarding strategies to facilitate the communication skills of children and youth with dual sensory and multiple impairments. This module includes definitions for the various types of communication, methods to assess communication, and strategies designed to facilitate communication.

## C. Intended Audience

This module is intended for parents and family members of children and youth with dual sensory and multiple impairments. It may also be appropriate for other individuals who are interested in expanding their basic understanding of communication.

## D. Level of Training

Awareness.

## E. Entry Level Skills or Prerequisites

There are no specific skills or prerequisites required to benefit from the content in this training module. The training activities in this module were designed to incorporate the wealth of knowledge parents and family members have about the current communication skills of their children with dual sensory and multiple impairments. Parents and family members are encouraged to share their experiences and knowledge throughout the training sessions.

## F. General Outcome Competencies

Participants will become aware of the following;

1. The rationale for facilitating functional communication in children and youth with dual sensory and multiple impairments.

2. The characteristics of behaviors that serve a communicative function.

3. The importance of observing each child's present level of communication before planning for intervention.

4. Key questions to be considered in assessing a child's communication skills.

5. Strategies to facilitate communication in children and youth with dual sensory and multiple impairments.

## G. Module Delivery Organization

1. Number of Lectures: 3

2. Amount of Time: Three ninety minute lectures for a total of four and one-half hours. Additionally, several group activities and opportunities for discussion are included. The combination of lecture, group activities, and discussion results in a total training session length of approximately one and one-half days.

3. Materials and Equipment: The trainer should use the handouts and overhead transparencies found in the Appendices. Additional resources such as videotapes developed (or purchased) by the trainer may also be used to enhance delivery of the training content.

## H. Special Instructions

The trainer should be sensitive when addressing disabling conditions of an individual by acknowledging the person first and the disability second. For example, the phrase, "students with deaf-blindness and multiple impairments" should be used rather than the phrase "severely multiply handicapped and deaf-blind students". The two terms, "deaf-blindness" and "dual sensory impairments," are used interchangeably throughout the module.

## II. Training Instructions

### A. Trainer Preparation

It is recommended that the trainer review the suggested readings prior to the training session. The trainer should be familiar with the outline and content of the module and be able to relay the information using functional examples.

### B. How to Deliver the Module

The module is written in outline form to provide a basic framework from which the trainer can deliver the content. The module is designed to be supplemented by videotapes, overhead transparencies, and handouts. The trainer is encouraged to utilize additional audio-visual materials, such as slides, and to draw from personal experiences.

### C. Training Tips

Embedded within the text of the module are suggestions for ways in which the trainer can enhance attention and learning. These suggestions are typed in bold-faced italics and enclosed in a special bracket. Here is an example.

> ***Pause here and ask participants to share any examples they may have.***

## III. Content - Part I: Communication Skills and Language

### A. Module Delivery Organization

1. Lecture Number: 1

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will become aware of the following:

a. The definition of communication.

b. The differences between nonsymbolic and symbolic communication.

c. The characteristics of communication.

### B. Content Overview Outline

1. The Definition of Communication

2. Types of Communication

3. Characteristics of Communication

### C. Suggested Readings for the Trainer

Sections of the content in the readings listed below served as a basis for development of this module. The trainer should obtain these resources and master the content prior to delivering the module.

Downing, J., & Siegel-Causey, E. (1988). Enhancing the nonsymbolic communicative behavior of children with multiple impairments. *Language, Speech, & Hearing Services in Schools, 19,* 338-348.

Newson, J. (1979). The growth of shared understanding between infant and caregiver. In M. Bullowa (Ed.), *Before speech: The beginning of interpersonal communication* (pp. 207-222). London: Cambridge University Press.

Reichle, J., & Keogh, W. (1986). Communication instruction for learners with severe handicaps: Some unresolved issues. In R. Horner, L. Meyer, & H. D. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 189-219). Baltimore: Paul H. Brookes.

Rogers-Warren, A., & Warren, S. (1984). The social basis of language and communication in severely handicapped preschoolers. *Topics in Early Childhood Special Education, 4,* 57-72.

Siegel-Causey, E., & Downing, J. (1987). Nonsymbolic communication development: Theoretical concepts and educational strategies. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 15-45). Baltimore: Paul H. Brookes.

## D. Introduction to the Content, Part I

***Introduce participants to this portion of the module by displaying Overhead 1. Refer to it as you review the following topics with participants. Next, you may want to say, "For the next ninety minutes, we will cover the following topics:***

1. ***The definition of communication***
2. ***Types of communication***
3. ***Characteristics of communication."***

## E. Specific Content

1. The Definition of Communication

***Display Overhead 2 as you present the definition.***

a. Communication may be defined as "a process by which information is exchanged between individuals through a common system of behaviors, symbols, or signs." The key aspects of this definition are:

   i. communication is a process that involves a minimum of two people: a sender and a receiver;

   ii. communication is not limited to a specific form; it is not necessary to use speech to communicate; and

   iii. the ability to communicate is necessary for individuals to exchange information and interact with one another.

b. Basic assumptions about communication are:

***Display Overhead 3 as you review basic assumptions.***

   i. all individuals can and do communicate;

   ii. communication allows individuals to control people and events in their environments (e.g., make requests, express wants, and have needs met);

   iii. individuals must learn to interact with others to increase the likelihood of communication development; and

   iv. individuals communicate most readily in their natural environments (e.g., home, school, community, recreation/leisure, and work).

***Ask participants to create a list of behaviors demonstrated by their children that they consider communicative.***

2. The Differences between Nonsymbolic and Symbolic Communication

***Display Overhead 4 as you describe differences between nonsymbolic and symbolic communication.***

a. Nonsymbolic communication is the ability to convey messages through the use of nonsymbolic means, such as body movements, facial expressions, vocalizations, mime, object manipulation, and natural gestures. Nonsymbolic communication should be considered, along with more symbolic means, as an acceptable and effective way to communicate. Nonsymbolic communication can be very efficient when referents (i.e., the physical representations of the topic of conversation) are physically present. It does not adequately represent more abstract thought.

   i. Unintentional communication is behavior that may be reflexive or accidental and that relies on both interpretive and interactive responses from another to be considered communicative (e.g., a young girl explores the surface of her high chair tray, grasps a cup, and bangs the cup on the tray. Her mother says, "you must be thirsty," puts a small amount of liquid in the cup, and physically guides her to take a sip).

   ii. Intentional communication, however, transmits a meaningful message to another person (e.g., a young girl taps mom's shoulder, obtains facial orientation, and extends a cup when thirsty).

b. Symbolic communication conveys messages through the use of symbols; speech, Braille, sign language, print, pictures, or Blissymbols.

   i. Symbolic communication is characterized by symbols that represent an object, feature, or action. It is not dependent on the presence of the referent (i.e., the actual object, person, or action) to have meaning.

***Ask participants to create a list of communicative behaviors they would like to see targeted for intervention. This activity is also suitable at the end of the session.***

3. Characteristics of Communication

***Display Overhead 5 as you present characteristics of communication.***

a. Communication is a behavioral trait of all individuals, regardless of the severity of the disability. (In general, the greater the severity of the disability, the greater the emphasis will be on the interpretive skills of the communication partner).

b. Communication must assume a form to be recognizable. Any behavior can be considered to have communicative value whether or not it is intentional. Individuals may use multiple forms of communication for receptive and expressive purposes [e.g., the child says "uh" and raises his arms to be picked up. He responds to both speech ("Do you want up?") and/or natural gestures (adult moves the child's arms up) presented by others].

c. Communication arises from a reason or function. People communicate because they have a specific reason to do so. There must be motivation for communication to occur. Emphasis is often placed on the functions of requesting and rejecting. Emphasis may also be placed on other functions of communication, such as commenting, greeting, giving information, and directing others. Functions other than just requesting and rejecting have numerous opportunities for expression in naturally occurring activities throughout each day. Children are rarely taught to thumb through books or magazines and point to pictures, or use an eye gaze as a means of commenting about what is seen. This simple activity is an excellent way to provide an opportunity to develop a leisure skill, as well as to facilitate communication and social interaction skills.

d. Communication must have content; something about which to "talk". This characteristic may provide additional support for including children and youth who have dual sensory and multiple impairments with a broad range of experiences. Students cannot be expected to carry on conversations about places, activities, and materials with which they have little or no experience.

e. Social partners are required for communication to occur. It is a highly interactive and dynamic exchange; therefore, it cannot be taught in isolation. Due to the social nature of communication, it is suggested that children and youth with dual sensory and multiple impairments have frequent interactions with less disabled and nondisabled peers.

f. Communication is a basic skill that occurs continuously throughout each day and is a part of all activities. There are numerous natural opportunities to practice communication skills on a daily basis.

***Display Overhead 6a, 6b, and 6c. Provide examples that illustrate the different forms of communication. Refer to the communication chart so participants understand how it is used. Distribute Handout 1.***

**F. Training Activities**

1. Participants can create a list of behaviors demonstrated by their children that may be considered communicative.

2. Participants can create a list of the characteristics of communication they would like to see emphasized during instruction.

## IV. Content - Part II: Assessing the Communication Skills of Children and Youth with Dual Sensory and Multiple Impairments

### A. Module Delivery Organization

1. Lecture Number: 2

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will become aware of the following:

a. The importance of an assessment process that emphasizes observation skills in functional environments and routines.

b. The importance of assessment data in planning intervention.

c. The contributions of a transdisciplinary team model to integrated communication intervention.

### B. Content Overview Outline

1. Observation Skills

2. Steps to Follow in Conducting Functional Assessment Strategies

3. Transdisciplinary Team Approach

## C. Suggested Readings for the Trainer

Holovach, K. (1987). *Teaching that works: The individualized critical skills model.* Sacramento: California State Department of Education.

Holvoet, J., Guess, D., Mulligan, M., & Brown, F. (1980). The individualized curriculum sequencing model (II): A teaching strategy for severely handicapped students. *Journal of the Association for Persons with Severe Handicaps, 5,* 337-351.

Stillman, R., & Battle, C. (1985). *The Callier-Azusa Scale (H): Scales for the assessment of communicative abilities.* Dallas: University of Texas at Dallas, Callier Center, South Central Regional Center for Services to Deaf-Blind Children.

Stillman, R., & Battle, C. (1986). Developmental assessment of communicative abilities in the deaf-blind. In D. Ellis (Ed.), *Sensory handicaps in mentally handicapped people* (pp. 319-335). London: Croom Helm.

Stremel-Campbell, K., Clark-Guida, J., & Johnson-Dorn, N. (1984). *Communication assessment manual* (Contract No. 300-81-0411). Monmouth, OR: Teaching Research.

## D. Introduction to the Content, Part II

***Introduce participants to this section of the module by displaying Overhead 7. Refer to it as you review the following topics with participants. Next, you may want to say: "For the next ninety minutes, we will cover the following topics:***

1. ***Observation skills***
2. ***Steps to follow in conducting functional assessment strategies***
3. ***The transdisciplinary team approach."***

## E. Specific Content

1. Observation Skills

   a. Observation skills are essential in planning, implementing, and evaluating intervention programs. Parents and family members who observe the child frequently are the greatest source of information regarding the child's responses to the environment. Service providers can benefit from observing parent and child interactions within familiar

environments.

***Provide an example here. Ask participants to share their own experiences.***

b. Observations conducted within familiar settings are important in evaluating how a child uses vision and hearing skills. It is important to learn what information the child is obtaining from the environment by using vision and hearing. Additional sensory information, such as how a child uses taste, smell, or touch together with information on the child's current communication behaviors, are also essential when planning appropriate intervention strategies.

***Provide an example here. Ask participants to share their own experiences.***

c. Further observations and informal assessments are often necessary to determine:

***Display Overhead 8 as you present additional considerations.***

i. Who interacts with the child?

ii. Are the child's attempts at communication rewarded?

iii. Is the child provided opportunities to communicate?

iv. What form(s) does the child use to communicate?

v. What does the child "talk" about?

vi. For what reasons does the child communicate?

Information gained by asking these core questions will assist parents and service providers to develop intervention strategies that focus on the role of both partners in the communicative exchange.

2. Steps to Follow in Conducting Functional Assessment

***Display Overhead 9 and refer to it during your presentation.***

a. Parent and caregiver interviews can assist educators in obtaining information on communication form, function, content, and social partners in activities and environments important to the child as identified by significant others in the child's life. Observers record how an individual communicates in familiar environments to obtain a measure of the optimal communication skills of the individual.

***Display Overhead 10 to provide examples of the parent interview process. Then display Overhead 9 again and refer to it as you discuss Steps b and c of the Assessment Procedure.***

b. An ecological assessment occurs in the child's natural environments (home, work, recreation/leisure, community, and school). Information is collected in context, that is, in environments where and when communication skills are required. Environments are divided into subenvironments followed by determination of the activities that occur in those subenvironments. For example, the environment of the neighborhood playground can be divided into the subenvironments of the duck pond, swings, and drinking fountain. The activities that occur (as well as the naturally occurring opportunities for communication and interaction during those activities) then are determined.

c. A discrepancy analysis is completed to determine what communication skills are required of a child for full participation in the activities, as well as what other skills (e.g., extend arm to throw bread cubes in the direction of the pond) the child demonstrates. The areas of discrepancy that are observed form the basis for targeted intervention. At this point, all team members make decisions based on the results of the discrepancy analysis. The decisions may include whether to teach the communication skills identified by the

discrepancy analysis, or whether to develop communication adaptations. An example of a communication adaptation is using a communication wallet with tactile symbols paired with written words for a student who is purchasing items in a grocery store.

***Expand this example or provide another example. Ask participants to provide examples from their experiences.***

3. Transdisciplinary Team Model

   a. Assessment information is obtained by all members of the team to identify and set priorities regarding communication needs and training activities. Ideally, implementation of communication intervention strategies is designed to occur across all aspects of the curriculum.

   b. An integrated model of team collaboration is recommended. Support staff (e.g., speech/language therapists, educators, physical therapists, and occupational therapists) should be included in the development of communication intervention programs. Communication skills should be assessed and developed within functional activities. Isolated assessment and programming that occurs out-of-context (i.e., assessment and treatment in a therapy room) is less functional. For example, 20 minutes of "speech therapy" on Tuesdays and Thursdays with the speech/language therapist in the therapy room may have little effect on a child's ability to use communication when and where it is needed. Communication intervention should occur throughout the day, within a variety of classroom, home, and community environments.

**F. Training Activities**

1. View the videotape "Within Reach" or any videotape of a child or children with limited communication skills. Ask participants to record all communicative behaviors they observe.

2. Have one participant assume the role of a parent of a child with dual sensory and multiple impairments and have another participant interview that person for the purpose of obtaining information on the child's communication skills. Facilitate group discussion on the key elements in the interview process.

## V. Content - Part III: Intervention Strategies

### A. Module Delivery Organization

1. Lecture Number: 3

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will become aware of the following:

a. The importance of communication skill development across all activities.

b. Strategies designed to facilitate the communication skills of a child with dual sensory and multiple impairments.

c. The role of environmental and touch cues in providing a child with information.

d. Strategies to enhance children's motivation to communicate.

e. The importance of consistent routines and interactions in facilitating communication development.

### B. Content Overview Outline

1. Communication as an Embedded Skill

2. Parent of Caregiver Responsiveness to Communicative Behaviors

3. Creating Social Environments

4. Environmental and Touch Cues

5. Enhancing Motivation for Communication to Occur

6. Providing Consistency in Routines and Interactions

**C. Suggested Readings for the Trainer**

Gaylord-Ross, R., Stremel-Campbell, K., & Storey, K. (1986). Social skill training in natural contexts. In R. Horner, L. Meyer, & H. D. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 161-188). Baltimore: Paul H. Brookes.

Guess, D., Benson, H., & Siegel-Causey, E. (1985). Concepts and issues related to choice-making and autonomy among persons with severe disabilities. *Journal of the Association for Persons with Severe Handicaps, 10,* 79-86.

Halle, J. (1982). Teaching functional language to the handicapped: An integrative model of natural environment teaching techniques. *Journal of the Association for the Severely Handicapped, 7,* 29-37.

Halle, J., Marshall, A., & Spradlin, J. (1979). Time delay: A technique to increase language use and facilitate generalization in retarded children. *Journal of Applied Behavior Analysis, 12,* 431-439.

Houghton, J., Bronicki, G., & Guess, D. (1987). Opportunities to express preferences and make choices among students with severe disabilities in classroom settings. *Journal of the Association for Persons with Severe Handicaps, 12,* 18-27.

MacDonald, J., & Gillette, Y. (1986). Communicating with persons with severe handicaps: Roles of parents and professionals. *Journal of the Association for Persons with Severe Handicaps, 11,* 255-265.

Rogow, S. (1984). The use of social routines to facilitate communication in visually impaired and multihandicapped children. *Topics in Early Childhood Education, 3,* 64-70.

Rowland, C., & Stremel-Campbell, K. (1987). Share and share alike: Conventional gestures to emergent language for learners with sensory impairments. In L. Goetz, D. Guess, & K. Gee

(Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 49-73). Baltimore: Paul H. Brookes.

Siegel-Causey, E., & Downing, J. (1987). Nonsymbolic communication development: Theoretical concepts and educational strategies. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 15-48). Baltimore: Paul H. Brookes.

Stainback, W., Stainback, S., & Jaben, T. (1981). Providing opportunities for interactions between severely handicapped and nonhandicapped students. *Teaching Exceptional Children, 13,* 72-75.

**D. Introduction to the Content, Part III**

***Introduce participants to this section of the module by displaying Overhead 11. Refer to it as you review the following topics with participants. Next, you may want to say: "For the next ninety minutes, we will cover the following topics:***

1. ***Communication as an embedded skill***
2. ***Parent or caregiver responsiveness to communicative behaviors***
3. ***Creating social environments***
4. ***Environmental and touch cues***
5. ***Enhancing motivation for communication to occur***
6. ***Providing consistency in routines and interactions."***

**E. Specific Content**

***Display Overhead 12. Use this overhead transparency as an opportunity to remind participants of the purpose of communication. Then display Overhead 11 again. Overhead 11 should remain in view throughout the remainder of the presentation on this section.***

1. Communication as an Embedded Skill

   a. Communication training provided only at specified times of the school day, in a therapy room outside of the classroom, home, or community setting, typically fails to support the

generalization of communication skills from one environment to the next. It also may lack meaning and is less functional than communication skills training that is integrated into every aspect of the student's daily life.

b. It is recommended that the speech/language therapist assess, monitor, consult with the parent and teacher, and facilitate communication efforts within functional, ongoing, home, classroom, and community activities.

c. It is recommended that communication skills be targeted as specific steps within each activity. Strict labeling practices (e.g., the parent says, "sign cup" or "point to the car") are avoided. For example, the parent and speech/language therapist may design an activity of playing with age-appropriate toys for a child six years old. Targeted communication within this activity includes: signaling the presence of a toy by a tactile cue while handing toys to a sibling (e.g., "here"), tapping a shoulder to get a sibling's attention (e.g., "your turn"), following directions for obtaining the materials, putting the toys away, and indicating when an activity is no longer interesting (e.g., using the covered sign for "I'm finished").

2. Parent or Caregiver Responsiveness to Communicative Behaviors

a. Responsiveness is considered the single greatest factor in facilitating communication. Responding to even the slightest motor behavior, (e.g., foot twitch or eyebrow movement) will increase the likelihood that the motor behavior will occur again. Even if a motor behavior is initially unintentional, the parent should attempt to interpret and respond to the child to enhance development of contingency awareness (i.e., the knowledge that your actions result in predictable and consistent consequences or outcomes). For example, a five year-old child with dual sensory impairments might attempt to touch her mother and vocalize as her mother passes her. As a result, the mother stops, signs the words "want" and "drink" into the child's hand. The child responds by moving her body from side to

side. Mom accepts this response, gives the child a drink and hugs her. In another example, a ten year-old child with severe multiple impairments and limited motor responses may move his feet while his father puts lotion on his legs after a bath. His father may interpret the foot movement as communication by saying, "Oh you like that lotion. Do you want more?" and applies additional lotion.

b. Accept any form of communication from the child initially. Do not demand symbol use, such as the correct sign for "drink" or gesturing "yes" . The goal of communication is to be effective. Wait until communication at an early level is well established before moving on to a more universal (i.e., more abstract) form.

c. Accept and reward multiple means of expressive communication. For example, a 14 year-old student with dual sensory impairments may tap a plastic spoon on the table at a fast food restaurant and wave his other hand in the air. The parent may take either hand and sign, "More to eat?" Over time, only the more acceptable forms of communication are to be rewarded while the less acceptable forms should diminish.

***Pause and ask participants if they have questions or examples from their experiences they would like to share with the group.***

3. Creating Social Environments

a. Provide opportunities for the child with dual sensory and multiple impairments to have interactions with other children by arranging activities that require sharing of materials or turn-taking (e.g., making a snack using a blender).

b. Teach interaction skills that allow a child with disabilities or a nondisabled sibling or peer to initiate a communication exchange, such as tapping a friend's shoulder to obtain

attention, orienting to the correct body position (i.e., face to face), or holding a family member's hand before exchanging a message.

4. Environmental and Touch Cues

   a. Communication is facilitated through daily routines and interactions. Cues that are part of an activity or action are termed environmental cues. Environmental cues can assist the child to anticipate the sequence of a routine (e.g., the scent of a bar of soap before hand washing).

   b. Natural or environmental cues provide the child with information about what will happen next. After presentation of a cue, a short delay (e.g., 1-5 seconds) should be provided to allow the child enough time to respond to the cue. For instance, the smell of popcorn can serve as a natural cue to prompt the child to request a portion.

   c. Touch cues can be used for the purposes of guidance, information sharing, or signaling the child that an event is going to happen. For example, touching a child's lips can cue the child that it is time to eat, or gently squeezing the child's shoulder and hip can be used to signal a change in position. Touch cues should be used as part of an interaction with a child who has dual sensory impairments. The child should never be pulled or pushed from one location to another. Pulling and pushing may encourage behaviors such as a startle reflex, or more aberrant behaviors such as hitting or self-injury. Touch cues should never be delivered too suddenly or be overly intrusive.

   d. Although environmental and touch cues are important, the problem of cue dependency should be addressed as well. A prompt hierarchy (e.g., a verbal cue paired with a touch cue, to a verbal cue paired with hand-over-hand manipulation) should be used that may avoid excessive prompting of an individual and that gives the individual time to respond.

Attention should be focused on antecedent cues (i.e., those that serve as natural cues to set the occasion for a behavior), rather than complete physical manipulation or an excessive reliance on tactile prompting strategies.

***Pause and ask participants if they have questions or examples from their experiences that they would like to share with the group.***

5. Enhancing Motivation for Communication to Occur

   a. It is important to create opportunities for children and youth with dual sensory and multiple impairments to communicate. Caregivers should avoid doing everything for the child. Instead, they should design ways to structure the environment so that children are encouraged to express their needs, comments, and protests. For example, wait for the child to indicate that the cassette tape is over before inserting a new tape.

   b. Always try to provide as many choices as possible. Children and youth should be provided with choices and multiple opportunities to make decisions during each day regarding their preferences for snack items, leisure activities, or clothing items. Choices can be made using object representation, pictures, eye gaze, or body movements.

   c. The use of artificial rewards, such as M & M's, raisins, or oyster crackers, is not recommended to reinforce communicative behaviors. Instead, natural rewards should be used. Communicative actions are best rewarded by fulfilling the intent of the action. For example, if a 4-year-old child signs "PLAY", she should be provided with an opportunity to play a game, not offered food as a reward for signing correctly.

   d. Novel types of stimulation should be provided as much as possible. Within a consistent and expected routine, new and interesting forms of stimulation can be added by altering the environment slightly, introducing new social partners, providing new materials, and by

doing the unexpected. For example, a young man may reach for the milk carton in the refrigerator to pour some of the contents into his coffee. He may discover that the carton is empty. This situation sets the occasion for him to search for an unopened carton or request assistance in making a shopping list.

e. Parent and teacher intervention should be planned so that the child or youth has ample time to initiate or respond to communication attempts. Systematic delays (of up to 5 seconds) provides sufficient time for the child to process the communicative requirements of an interaction or to express a thought. A pause also may serve as a cue to communicate. Close physical proximity to the child, in combination with systematic timing, can encourage the child to initiate communication exchanges.

6. Providing Consistency in Routines and Interactions

a. Consistency in daily routines will help the child or youth anticipate events and the communication expectations during those events. Consistent daily routines may promote receptive understanding of directions and expectations for behavior during daily routines. Environmental cues may also assist in the development of expressive communication skills. For example, an 18 year-old young adult may use a calendar sequence box to understand her daily schedule. The activities of her daily routine may be represented with objects or parts of objects used in the activities. She may retrieve these objects and use them to interact with others during the activity. She then returns the objects to the "finished box" when the activity is completed. This provides her multiple opportunities for communication during her daily routines.

***Show samples of student schedules here.***

b. It is suggested that adults strive for consistency in their interactions with their children.

Care must be taken to use the preferred communication modes of the child or youth (possibly different modes for reception and expression). Sometimes the communication modes will change during the course of a lifetime. For example, an individual with Usher's Syndrome may begin to experience loss of peripheral vision during adolescence. As manifestations of the syndrome become more pronounced, the youth may require instruction in different forms of communication than when he was younger. When he was young, he may have used sign language, written words, vocalizations, and some verbal expressions to communicate. As an adult, he may need to use touch cues, covered sign, and Braille to receive and give information. He may rely more on his sense of smell and touch as sources of information about his environment. Also, he may need to be cued on his body regarding the initiation and termination of activities.

c. Frequent contact between parents and service providers is important to ensure that all communication partners are responding to the same expressive communicative behaviors, and using the same cues to assist the child's use of receptive skills.

d. Specific strategies should be implemented to ensure that the child or youth's receptive and expressive communication skills are targeted for occurrence in a number of environments, across a number of different social partners, and for a number of purposes to ensure that the skills will transfer or generalize from one environment to another.

***Refer to Overhead 11 and review the strategies listed with participants. Allow time for participants to complete notetaking and to ask questions.***

**F. Training Activity**

1. Have participants divide into two groups. Have each group select either the child or youth described below and complete the activities under the description selected. Have a spokesperson from each of the two groups describe how they chose to address the issues in

front of the large group.

## G. Scenarios/Vignettes

1. Student 1: Description

Tina is 7 years old. She has severe to profound mental retardation, no functional vision, a hearing loss of 50 dB in both ears, and cerebral palsy. She is nonambulatory, but has some use of her arms and hands. She enjoys listening to music, physical activities that involve vestibular stimulation (i.e., repeated movement in space, such as swinging on a swing), and physical interaction with adults. Typically, Tina communicates by banging or shaking objects placed in her hands and vocalizing for attention.

Activities

a. Identify some potential modes of communication for Tina. Ask if use of these modes permit the following:

   i. Can they be used across a variety of settings?

   ii. Can they be understood by those familiar to her? By those not familiar to her?

   iii. Do they effectively communicate her wants and needs?

   iv. Do they occur many times during the day?

b. Identify how you would approach Tina in order to communicate with her.

c. Suggest a typical home routine during which Tina can use her selected communication modes.

2. Student 2: Description

Tim is 19 years old with severe retardation and no functional vision or hearing. He has full use of his arms and legs. Tim enjoys sedentary activities like modeling clay, activating a vibrating pillow, and eating. Tim engages in frequent self-stimulatory behavior (e.g., rocking, hand mouthing, and vibratory noisemaking) and has been known to strike out at objects and people when upset and frustrated. Tim responds to touch cues appropriately. He has no formal expressive communication system; however, he will raise his arms in the air and wave them until he is touched.

Activities

a. Give reasons as to why Tim may strike out when he is frustrated and upset. What do you think he is trying to communicate?

b. Identify how you would approach Tim to communicate with him.

c. Given Tim's limited sensory abilities, select the most logical communication modes for him.

## VI. Sources for Additional Information

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Publisher's address: Illinois State Board of Education
Publications
100 North First Street
Springfield, IL 62777

Phone number: (217) 782-6601

Cost of book: Available for loan

American Occupational Therapy Association. (1986). *Guidelines for occupational therapy services in school.* Rockville, MD: AOTA.

Publisher's address: AOTA
1383 Piccard Drive
Rockville, MD 20850

Phone number: (301) 948-9626

Cost of book: $39.00

American Physical Therapy Association. (1985). *Physical therapy practice in educational environments: Policies, guidelines, and background information.* Alexandria, VA: APTA.

Publisher's address: APTA
1111 North Fairfax Street
Alexandria, VA 22314

Phone number: (703) 684-2782

Cost of book: $9.00

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Stillwater: Oklahoma State University, National Clearinghouse of Rehabilitation Training Materials.

Publisher's address: National Clearinghouse of Rehabilitation
Training Materials
Oklahoma State University
816 W. 6th Street
Stillwater, OK 74078

Phone number: (405) 624-7650

Cost of book: $5.50 plus postage and handling

Goetz, L., Guess, D., & Stremel-Campbell, K. (1987). *Innovative program design for individuals with dual sensory impairments.* Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O. Box 10624
Baltimore, MD 21285-0624

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Cost of book: $29.95

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Publisher's address: Resources in Special Education
900 J Street
Sacramento, CA 95814-2703

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510 North Avenue
New Rochelle, NY 10801

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Cost of book: $19.35

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Publisher's address: Little, Brown, & Company

200 West Street

Waltham, MA 02254

Phone number: (617) 227-0730

Cost of book: $39.50

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Publisher's address: Teaching Research Publications

345 North Monmouth Avenue

Monmouth, OR 97361

Phone number: (503) 838-8817

Cost of book: $10.00

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Publisher's address: Teaching Research Publications

345 North Monmouth Avenue

Monmouth, OR 97361

Phone number: (503) 838-8770

Cost of videotape: $10.00

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Publisher's address: Center for Developmental Disabilities
499 C Waterman Building
University of Vermont
Burlington, VT 05405

Phone number: (802) 656-4031

Cost of book: $4.00

Wolfensberger, W. (1977). *The principle of normalization in human services.* Ontario, Canada: G. Allen Roeher Institute.

Publisher's address: The National Reference Service
The G. Allen Roeher Institute
Kinsman Building, York University Campus
4700 Keele Street
Downsview, Ontario M3J1P3

Phone number: (416) 661-9611

Cost of book: $12.50

## VII. Evaluation Measures

### A. Pre/Post Evaluation

**FACILITATING FUNCTIONAL COMMUNICATION:**
**PARENT TRAINING MODULE**

*Downing & O'Dea*

Name _____ Pre _____

Date _____ Post _____

# Points Possible: 20

Length of Time Allowed: 30 minutes

1. Describe components included in the definition of communication. (3 pts.)

2. Give a specific example of nonsymbolic communication and symbolic communication. (2 pts.)

3. List three questions that a functional assessment should answer about the communication skills of a child or youth. (3 pts.)

4. Describe a touch cue and give an example of how it can be used in a daily activity. (2 pts.)

5. Name five intervention strategies that can be used to enhance the communicative skills of students with dual sensory and multiple impairments. (10 pts.)

**B. Answer Key**

1. All three components should be considered correct.

   a. It involves a minimum of two people; a sender and a receiver.
   b. It is not limited to a specific form.
   c. Communication is necessary for people to exchange information and interact with each other.

2. Any one of the following should be considered correct.

   a. Nonsymbolic communication
      i. body movement
      ii. gestures
      iii. facial expressions
      iv. mime
      v. object manipulation

   b. Symbolic communication
      i. speech
      ii. Braille
      iii. pictures
      iv. Blissymbols
      v. sign language
      vi. printed words

3. Any of the following answers should be considered correct.

   a. Who interacts with the child?
   b. Are the child's attempts at communication rewarded?
   c. Is the child provided opportunities to communicate?
   d. What forms does the child use to communicate?
   e. What does the child talk about?
   f. For what reasons does the child communicate?

4. The following answer should be considered correct.

   a. A touch cue is a signal provided to the child to indicate something is about to happen. An example of a touch cue is: tapping the child's lips with your forefinger to signal, "It's time to eat or drink."

5. All of the following should be considered correct.

   a. Create opportunities for the child to communicate.
   b. Provide as many choices as possible.
   c. Use natural rewards in place of those that are artificial.
   d. Provide novel types of stimulation.
   e. Allow the child enough time to respond to the communication initiated by a peer or an adult.

**C. Participant Satisfaction Evaluation**

**A Series of Training Modules**
**on Educating Children and Youth**
**with Dual Sensory and Multiple Impairments**

## Participant Evaluation of Training

Module: Facilitating Functional Communication:
Parent Training Module

Trainer: _____ Date of Training: _____

Training Site: _____

Please read each of the following statements carefully and rate each statement using the following key:

| | | | |
|---|---|---|---|
| 1 = Strongly Disagree | (SD) | 4 = Agree | (A) |
| 2 = Disagree | (D) | 5 = Strongly Agree | (SA) |
| 3 = Undecided | (U) | | |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 1. | Overall, the content of this training met my expectations. | 1 | 2 | 3 | 4 | 5 |
| 2. | I learned useful information about characteristics and types of communication as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 3. | I learned useful information about assessing communication as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 4. | I learned useful information about how to facilitate communication of children and youth with dual sensory impairments as a result of the training | 1 | 2 | 3 | 4 | 5 |
| 5. | The training provided specific information that I can apply. | 1 | 2 | 3 | 4 | 5 |
| 6. | The training content was applicable to my needs as parent or family member. | 1 | 2 | 3 | 4 | 5 |
| 7. | Materials available from this training were relevant and beneficial. | 1 | 2 | 3 | 4 | 5 |
| 8. | The trainer demonstrated competence in the area of communication development. | 1 | 2 | 3 | 4 | 5 |
| 9. | The trainer communicated clearly and effectively. | 1 | 2 | 3 | 4 | 5 |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 10. | The trainer was responsive to the questions and needs of participants. | 1 | 2 | 3 | 4 | 5 |
| 11. | The trainer encouraged active involvement by participants and was able to facilitate group discussion. | 1 | 2 | 3 | 4 | 5 |
| 12. | The trainer was able to effectively present information through utilization of a multisensory approach (i.e., lecture, activities, discussion, overhead transparencies, handouts, readings, and videos.) | 1 | 2 | 3 | 4 | 5 |

13. Reflecting on these training activities, in what ways do you see yourself using the training?

14. What were the strengths of this training?

15. What follow-up needs can you identify for yourself?

16. How could these training activities and module have been improved?

## Appendix A

## Overhead Transparencies

# CONTENT OUTLINE

1. The Definition of Communication

2. Types of Communication

3. Characteristics of Communication



(Overhead 1)

# COMMUNICATION

A process by which information is exchanged between individuals through a common system of behaviors, symbols, or signs.

- Communication is a process that involves a minimum of two people; a sender and a receiver.

- Communication is not limited to a specific form; it is not necessary to use speech to communicate.

- The ability to communicate is necessary for individuals to exchange information and interact with each other.

# BASIC ASSUMPTIONS ABOUT COMMUNICATION

i. All individuals <u>can</u> and do communicate.

ii. Communication allows individuals to control people and events in their environments (e.g., make requests, express wants, and have needs met).

iii. Individuals must learn to interact with others to increase the likelihood of communication development.

iv. Individuals communicate most readily in their natural environments (e.g., home, school, community, recreation/leisure, and work).



(Overhead 3)

# TYPES OF COMMUNICATION

1. Nonsymbolic

2. Symbolic



(Overhead 4)

# CHARACTERISTICS OF COMMUNICATION

1. Behavioral Trait of All Individuals

2. Form - an Identifiable Behavior

3. Function - a Reason or Motive

4. Content - Something to Talk About

5. Interactive & Dynamic - Social Partners are Required

6. Basic Skill that Occurs Continuously Throughout Each Day

(Overhead 5)

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Protest/reject object in view | Shake head | Push away symbol for object in view | "Finished" |
| Request object in view | Open palm | Tap symbol for object in view | "Cracker" |
| Request ongoing action | Mime parts of action | Point to symbol for ongoing action | "More" |
| Request attention | Raise hand | -- | "Mom" |





(Overhead 6a)

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Direct attention | Point | -- | "Look" |
| Request information/permission | Eye contact/hesitation | -- | "Please" |
| Offer/share | Extend object | -- | "Here" |
| Social | Wave | -- | "Hi" |
| Confirm/deny | Nod Head | -- | "Yes" |
| Protest/reject absent object | -- | Push away symbol for absent object | "Spinach" & shake head |

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Request absent object | -- | Extend symbol for absent object | "Ice cream" |
| Request absent action | -- | Tap symbol for absent action | "Eat" |
| Label | -- | Point to symbol for referent | "Ball" |
| Comment | -- | -- | "All gone" |
| Question | -- | -- | "Why?" |

Adapted from: Stremel-Campbell, K. (1985). *Community intervention for infants with sensory impairments.* Paper presented at Illinois TASH Conference.

# CONTENT OUTLINE

1. Observation Skills

2. Steps to Follow in Conducting Functional Assessment Strategies

3. Transdisciplinary Team Approach



(Overhead 7)

# ADDITIONAL CONSIDERATIONS

i. Who interacts with the child?

ii. Are the child's attempts at communication rewarded?

iii. Is the child provided opportunities to communicate?

iv. What form(s) does the child use to communicate?

v. What does the child "talk" about?

vi. For what reasons does the child communicate?



(Overhead 8)

# STEPS IN A FUNCTIONAL ASSESSMENT PROCEDURE

Target Skill: Communication

A: Parent or Caregiver Interview

Information obtained: What activities and environments are important to the child? How does the child currently communicate in those activities and environments?

B: Ecological Inventory

Information obtained: What important communication skills are necessary for the child to participate in the child's typical environments?

C: Discrepancy Analysis

Information obtained: What communication skills are performed by the child? Are these skills adequate or inadequate to allow for participation in the activity? Are adaptations needed?

# PARENT INTERVIEW PROCESS

Daily Schedule of Activities

Level of Assistance Needed to Perform Work, Recreation/leisure, Home, and School Activities

Level of Skill Development

High Priority Activities

Potential Rewards

Medical Considerations

Present and Future Home, School, Work, Recreation/leisure, and Community Environments

Family Dynamics and Levels of Participation



(Overhead 10)

# CONTENT OUTLINE

1. Communication as an Embedded Skill

2. Parent or Caregiver Responsiveness to Communicative Behaviors

3. Creating Social Environments

4. Environmental and Touch Cues

5. Enhancing Motivation for Communication to Occur

6. Providing Consistency in Routines and Interactions

(Overhead 11)

# GOAL OF COMMUNICATION SKILL TRAINING

The goal of communication skill training is to assist the child's or adult's progress from unintentional (reflexive or accidental behavior) to intentional communicative acts in a manner that is age-appropriate, in context, meaningful to the individual, and that will generalize across a wide social base.



(Overhead 12)

## Appendix B

## Handouts

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Protest/reject object in view | Shake head | Push away symbol for object in view | "Finished" |
| Request object in view | Open palm | Tap symbol for object in view | "Cracker" |
| Request ongoing action | Mime parts of action | Point to symbol for ongoing action | "More" |
| Request attention | Raise hand | -- | "Mom" |

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Direct attention | Point | -- | "Look" |
| Request information/permission | Eye contact/hesitation | -- | "Please" |
| Offer/share | Extend object | -- | "Here" |
| Social | Wave | -- | "Hi" |
| Confirm/deny | Nod Head | -- | "Yes" |
| Protest/reject absent object | -- | Push away symbol for absent object | "Spinach" & shake head |

# Examples of Forms and Functions: Conventional Gestures through Emergent Language

| Functions | *Forms* | | |
|---|---|---|---|
| | **Nonsymbolic (Conventional Gestures)** | **Concrete Symbolic (Objects or Pictures)** | **Abstract/Symbolic (Sign/Speech/Abstract Symbols)** |
| Request absent object | -- | Extend symbols for absent object | "Ice cream" |
| Request absent action | -- | Tap symbol for absent action | "Eat" |
| Label | -- | Point to symbol for referent | "Ball" |
| Comment | -- | -- | "All gone" |
| Question | -- | -- | "Why?" |

Adapted from: Stremel-Campbell, K. (1985). *Community intervention for infants with sensory impairments.* Paper presented at Illinois TASH Conference.

# THE FUNCTIONAL APPROACH TO CURRICULUM DEVELOPMENT

**Parent Training Module**

*Donna Wickham*
*The University of Kansas*

*Joan Houghton*
*University of Pittsburgh*

**1990**

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## I. General Information - Overview

### A. Parent Training Module

The Functional Approach to Curriculum Development

### B. Purpose of the Module

The purpose of this module is to assist parents and caregivers in gaining an awareness of a functional curriculum approach for their children with dual sensory and multiple impairments. Information and activities presented in this module address the rationale for selecting a functional curriculum, the components of a functional curriculum, and the role of parents in the development of a functional curriculum for their children.

### C. Intended Audience

This module is intended for parents, family members, guardians, or advocates who are involved in educational planning for their children with dual sensory and multiple impairments. The functional curriculum approach should be especially useful to parents and families as it requires their input and participation during both development and implementation.

### D. Level of Training

Awareness

### E. Entry Level Skills or Prerequisites

Participants do not need prior knowledge of curriculum development to participate in this training activity.

### F. General Outcome Competencies

Participants will become aware of the following:

1. Two approaches that have been used in developing curricula for children with dual sensory and multiple impairments.

2. The benefits of utilizing a functional curriculum approach for children with dual sensory and multiple impairments.

3. The components of a functional curriculum.

4. Parent and family involvement in a functional curriculum approach.

## G. Module Delivery Organization

1. Number of Lectures: 4

2. Amount of Time: One to two hours per lecture plus additional time for implementation of training activities and discussion. Overall time estimates for presentation of this module range from one-and-one-half days to two days.

3. Materials and Equipment: Although specific examples and copies of overhead transparencies are provided, the trainer is encouraged to utilize a variety of additional materials (e.g., videotapes, additional overhead transparencies, handouts, or slides).

## H. Special Instructions

The trainer should be sensitive when addressing disabling conditions of an individual by acknowledging the person first and the disability second. For example, the phrase "students with deaf-blindness and multiple impairments" should be used rather than the phrase "severely multiply handicapped and deaf-blind students." The two terms, "deaf-blindness" and "dual sensory impairments," are used interchangeably throughout the module. The trainer also should limit the use of professional jargon. A limited number of key terms and concepts should be explained to assist parents and family members working with educational teams.

## II. Training Instructions

### A. Trainer Preparation

The trainer should have an understanding of the functional curriculum process along with an awareness of current best educational practices for children and youth with dual sensory and multiple impairments. In addition, the trainer should become familiar with the suggested readings and materials prior to the presentation of this module.

### B. How to Deliver the Module

The trainer is encouraged to adapt the training format to meet the needs of the audience. The trainer is encouraged to utilize personal and professional experiences that will further clarify concepts used in the process of developing and implementing a functional curriculum.

### C. Training Tips

Embedded within the text of the module are suggestions for ways in which the trainer can enhance participant attention and learning. These suggestions are typed in bold-faced italics and enclosed in a special bracket. Here is an example.

> ***Pause here and ask participants to share any questions they may have.***

## III. Content - Part I: Approaches to Curricula

### A. Module Delivery Organization

1. Lecture Number: 1

2. Amount of Time: Two hours

3. Specific Outcome Competencies

   Participants will become aware of the following:

   a. General characteristics of two types of curricula utilized with children and youth who have dual sensory and multiple impairments.

   b. Benefits and limitations of developmental curricula.

   c. Benefits and limitations of functional curricula.

### B. Content Overview Outline

1. General Characteristics of Curricula

2. Characteristics of Developmental Curricula

3. Characteristics of Functional Curricula

### C. Suggested Readings for the Trainer

Sections of the content in the readings listed below served as a basis for the development of this module. The trainer should obtain these resources and master the content prior to delivering the module.

Brown, F. (1987). Meaningful assessment of people with severe and profound handicaps. In M. E. Snell (Ed.), *Systematic instruction of persons with severe handicaps (3rd ed.)* (pp. 39-63).

Columbus: Charles E. Merrill.

Brown, L., Branston, M. B., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenwald, L. (1979). A strategy for developing chronological age-appropriate and functional curricular content for severely handicapped adolescents and young adults. *The Journal of Special Education, 13,* 81-90.

Lewis, P. (1987). A case for teaching functional skills. *The Association for Persons with Severe Handicaps Newsletter, 13,* 6-12.

Mirenda, P. L., & Donnellan, A. M. (1986). Issues in curriculum development. In D.J. Cohen, A. Donnellan, & R. Paul (Eds.), *Handbook of autism and pervasive developmental disorders* (pp. 211-226). New York: John Wiley & Sons.

Wilcox, B., & Bellamy, G. (1982). Curriculum content. *Design of high school programs for severely handicapped students* (pp. 23-40). Baltimore: Paul H. Brookes.

## D. Introduction to the Content, Part I

***Introduce this session by announcing the title and displaying Overhead 1. Refer to it as you review topics with participants. Next, you may want to say: "This session will provide a description of developmental and functional curricula. The following information will be covered:***

1. ***General characteristics of curricula***
2. ***Characteristics of developmental curricula***
3. ***Characteristics of functional curricula."***

## E. Specific Content

1. General Characteristics of Curricula

Curricula are used to guide the content (i.e., the "what to teach") of educational service delivery programs. Curricula are based on theories of child development, educational principles and philosophies, and models of regular education.

Decisions regarding placement of a child or youth at a particular level within a curricular sequence are based upon the child's strengths and needs. The child's strengths and needs

are identified by conducting assessments. Commercially available curricula often contain methods for assessing the child's strengths and needs. Information derived from these sources should be supplemented with results obtained from additional informal assessment processes. Examples of these processes include parent or caregiver interviews regarding priority content for instruction, as well as inventories of the performance expectations for each child's current and future home, school, work, and community environments. This comprehensive formal and informal assessment process is necessary in order to depict an accurate representation of the child's abilities, as well as to guide the direction of instruction on relevant curricular content. There are many different types of curricula available; however, only two models will be addressed in this section. They are:

- the developmental model, and
- the functional model.

***Display Overhead 2 and refer to it as you review the information with participants. Also, distribute Handout 1. Have participants refer to it as you review the content throughout this session.***

2. Characteristics of Developmental Curricula

Developmental curricula are based on growth sequences of nondisabled children. Developmental assessments indicate the approximate age at which nondisabled children achieve specific skills across broad domains. These domains are:

***Display Overhead 3 and refer to it as you list developmental skill areas.***

- receptive and expressive communication;
- gross and fine motor;
- social and emotional development;

- pre-academic and academic;
- self-help;
- pre-vocational and vocational; and
- sensory skills.

For example, a nine month old (chronological age) child assessed in the gross motor domain might demonstrate skills that are typically performed by a six month old infant, but the child may lack the skills of a 7, 8, or 9 month old infant. This child would be classified as functioning at the six month developmental age level for gross motor skills.

When using the developmental model, the child's assessed developmental age influences the selection of skills, materials, and activities used to teach in each domain, as well as the selection of environments used for instruction. Generally, those skills that are not performed by the child are targeted for instruction and are written as goals and objectives. Once target skills are acquired, the child progresses to the next skill level. Materials (e.g., 1/2" cubes, toy truck, or a doll) listed on assessments are often used to evaluate child performance regardless of the chronological age of the child. For example, a 10 year old girl (chronological age) was assessed on fine motor skills. After completing the test, it was determined she was functioning at a three to four month developmental age level for fine motor skills. One of the skills she did not demonstrate was "push toy truck away from body." The team decided that this skill would be targeted for instruction. The student's teacher trained her on this skill using materials reflecting her developmental age, such as a Playskool musical toy apple, a large blow-up ball decorated with nursery rhyme characters, and a toy truck. The student would not be able to progress to the next skill level until the ability to push the toys was mastered.

***Display Overhead 4 and refer to it as your review the benefits with participants.***

a. Benefits

   i. It is a global curriculum that covers a vast number of skills in a systematic fashion.

ii. It can be used to target areas which require additional assessment.

iii. It can be used to divide skills into component parts.

iv. For younger students (e.g., chronological ages of 0-5 years), it allows for an opportunity to compare performance with normal developmental skills.

***At this point, you might pause and request input from the audience. Ask them what they think would be some limitations of a developmental curriculum. List their responses on a blank overhead transparency, chalk board, or flip chart. Fill in with the additional information below, which you can also display as Overhead 5.***

b. Limitations

i. It follows the sequence of development typical of nondisabled individuals. Students with dual sensory and multiple impairments do not traditionally progress along the same growth sequences as their nondisabled peers. Skills targeted for instruction may never be learned, making it impossible for them to progress to the next skill level.

ii. The primary focus of developmental curriculum is on the form of the skill rather than the function (Orelove & Sobsey, 1987). It does not take into account that children with dual sensory and multiple impairments may use alternative methods and adaptations to accomplish skill tasks. For example, a developmental curriculum may focus only on speech, rather than alternative forms of communication, such as acquisition of Blissymbols or signed communication.

iii. Often, materials and skills used during instruction are not meaningful or chronologically age-appropriate. Students with dual sensory and other impairments often experience difficulty in transferring and generalizing skills from one setting to another when instructional tasks and materials are not meaningful. Also, if the student is not using materials or engaging in the same activities as his age-appropriate peers, he may experience difficulty in developing friendships with his nondisabled peers.

3. Characteristics of Functional Curricula

It has long been recognized that children with dual sensory and multiple impairments have difficulty in transferring and generalizing skills from one environment to the next. Functional curricula were developed to address the difficulty students have with generalization by identifying future environments and important skills needed to function in those environments, and by providing instruction in natural settings.

***Display Overhead 6 here as you describe characteristics of a functional curriculum.***

Characteristics of a functional curriculum (often referred to as an ecological or environmental curriculum); are chronologically age-appropriate, are relevant to performance in integrated settings, reflect the impact of transition to the next environment, are meaningful, include student and parent choices and preferences, and are taught in natural environments. It is designed for all students of every age regardless of the severity of their disabling conditions. Students with disabilities who are unable to perform steps of a skill sequence independently are provided with physical, structural, or instructional adaptations that enable them to participate.

***Display Overhead 7 here as you discuss life areas of a functional curriculum.***

A functional curriculum is divided into five life areas (i.e., domains): independent living (i.e., domestic), work, recreation/leisure, regular education, and community life. Communication, gross and fine motor, cognitive, and sensory skills are taught in various environments and subenvironments across five life areas. Parent inventories and student choice/preference surveys are conducted to determine curriculum development. Environments and subenvironments are identified in each life area. For example, in the recreation/leisure life area, an environment may be the public pool, YMCA pool, or the school pool.

Subenvironments include the parking lot, locker rooms, immediate pool area, and snack bar. Instructional skill sequences necessary to function within the subenvironments are identified, and student performance is assessed using the steps of skill sequence as a comparative measure. Skills are targeted for instruction and adaptations are suggested to facilitate participation.

***Display Overhead 8. Ask for participant input as you discuss benefits and limitations of a functional curriculum model.***

a. Benefits

i. Content is highly individualized and designed specifically to meet students' needs in their current and future environments (Orelove & Sobsey, 1987).

ii. Skill sequences are relevant and meaningful.

iii. Instruction is provided in natural environments to increase student learning and decrease the need to program for generalization.

iv. There is extensive parental and student input in individual program development.

v. "Top down" rather than "bottom up" skills are taught (Orelove & Sobsey, 1987).

***Display Overhead 9 for this portion of the discussion.***

b. Limitations

i. If developmental information is disregarded, it is very likely that skills selected for instruction may be beyond the capabilities of the student (Mirenda & Donnellan, 1986).

ii. The approach is very time consuming and schedules are complex.

iii. It does not provide instructions or guidelines for deciding what to teach out of many skills that are identified (Orelove & Sobsey, 1987).

***To conclude, ask participants for their personal reactions to this content.***

**F. Training Activities**

***The following activities provide participants with an excellent opportunity to respond to the content, as well as to communicate with each other.***

1. Ask participants to divide into small groups to discuss the programs of their children. Have them decide whether it is a developmental or functional curriculum. Have them identify benefits and limitations of the programs.

2. Ask participants to read and discuss Handout 2, "A Case for Teaching Functional Skills." You may choose to have separate discussions for parents and siblings.

## IV. Content - Part II: Components of a Functional Curriculum

### A. Module Delivery Organization

1. Lecture Number: 2

2. Amount of Time: Two hours

3. Specific Outcome Competencies

   Participants will become aware of the following:

   a. Components included in a functional curriculum.

### B. Content Overview Outline

1. Life Areas

2. Age-Appropriate Skills and Materials

3. Functional and Meaningful Skills

4. Parent or Caregiver Preferences

5. Student Preferences/Choices

6. Instruction in Natural Environments

7. Partial Participation

8. Integration with Nondisabled Peers

9. Transdisciplinary Team Involvement

## C. Suggested Readings for the Trainer


Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of the Association for the Severely Handicapped, 7,* 17-27.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenwald, L. (1979). A strategy for developing chronological age-appropriate and functional curricular content for severely handicapped adolescents and young adults. *The Journal of Special Education, 13,* 81-90.

Brown, L., Nisbet, J., Ford, A., Sweet, M., Shiraga, B., York, J., & Loomis, R. (1983). The critical need for nonschool instruction in educational programs for severely handicapped students. *Journal of the Association for the Severely Handicapped, 8,* 71-77.

Falvey, M. (1986). *Community-based curriculum: Instructional strategies for students with severe handicaps.* Baltimore: Paul H. Brookes.

Gaylord-Ross, R. J., & Holvoet, J. F. (Eds.). (1985). Making the curriculum natural and functional. *Strategies for educating students with severe handicaps* (pp. 89-124). Boston: Little, Brown, & Company.

Mirenda, P. (Speaker)., & Kansas State Department of Education (Director/Producer). (1987). *Independent living skills in community-based instruction for students with severe multiple handicaps and deaf-blindness* [Videotape]. Emporia, KS: Innovative Communications, Inc.

Nietupski, J. A., & Hamre-Nietupski, S. M. (1987). An ecological approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 225-254). Baltimore: Paul H. Brookes.

Orelove, F.P., & Sobsey, D. (1987). Curriculum and instructional programming. *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 157-181). Baltimore: Paul H. Brookes.

Sailor, W., Halverson, A., Anderson, J., Goetz, L., Gee, K., Doering, K., & Hunt, P. (1986). Community intensive instruction. In R. Horner, L. Meyers, & H. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 251-288). Baltimore: Paul H. Brookes.

Turnbull, A. P., Brotherson, M. J., Bronicki, G. J., Benson, H. A., Houghton, J., Roeder-Grodon, C., & Summers, J. A. (1985). Parent/family inventory of current and future environments. *How to plan for my child's adult future: A three-part process to future planning* (pp. 6-13). Lawrence: University of Kansas Affiliated Facility, Bureau of Child Research.

Turnbull, H. R., Turnbull, A. P., Bronicki, G. J., Summers, J. A., & Roeder-Gordon, C. (1989). *Disability and the family: A guide to decisions for adulthood.* Baltimore: Paul H. Brookes.

Wilcox, B. (1989, May). *Activity-based curriculum.* Paper presented at the Southeast Regional Resource Center Conference, Grantville, PA.

York, J., & Vandercook, T. (in press). What's in an IEP? Writing objectives for an integrated education. *Teaching Exceptional Children.*

**D. Introduction to the Content, Part II**

***Introduce this session by announcing the title and displaying Overhead 10. Refer to it as you review the topics with participants. Next you may want to say: "This session will provide a description of each of the nine components of a functional curriculum. Each component is incorporated into a child's educational program. The components are:***

1. ***Life areas***
2. ***Age-appropriate skills and materials***
3. ***Functional and meaningful skills***
4. ***Parent choices and preferences***
5. ***Student choices and preferences***
6. ***Instruction in natural environments***
7. ***Partial participation***
8. ***Integration with nondisabled peers***
9. ***Transdisciplinary team involvement."***

**E. Specific Content**

1. Life Areas

***Display Overhead 11 as you discuss five different life areas.***

All persons, regardless of their age, participate in each of the following life areas. However, the amount of time spent in each area and the activities performed in each are based on the student's age.

a. Independent living (Domestic). The independent living life area includes those activities typically associated with personal hygiene and home management. These activities are sometimes referred to as self-help, life, or daily living skills. They include skills such as dressing, eating, toileting, food preparation, laundry, or vacuuming.

b. Work. The life area of work includes those environments where people perform a job. Social behaviors, such as staying on-task or socializing during break time are included as well. Environments considered appropriate for the work area are any locations where jobs are performed by a nondisabled co-worker. Examples of work skills are folding brochures at an office, putting together high-chair trays at fast food restaurants, or stamping "confidential" on files at a hospital. Opportunities and types of jobs in community settings are plentiful.

c. Recreation/leisure. The recreation/leisure life area includes those environments in which an individual functions during free time. Activities may involve either active participation, such as score keeping during a bowling tournament by activating a switch which controls the scoreboard, or passive participation, such as being a spectator at sporting, theatrical, or music events. Other activities may include playing computer games at video arcades, participating in a low impact aerobics class, or activating a switch to turn on a record player or radio.

d. Regular education. The regular education life area includes those locations which occur in regular education settings frequented by nondisabled peers. Examples of activities conducted in regular school environments include greeting a friend in home room, learning coin exchange in a third grade math class, or participating in extracurricular activities with

classmates.

e. Community life. The community life area includes those environments typical of a neighborhood. Activities may include depositing a check, going to a restaurant, grocery shopping, or keeping a dentist appointment. Locations considered appropriate for conducting instruction in the community life area include any setting which is accessed by a nondisabled peer or members of the student's family.

***At this point you may want to involve participants in some focused discussion. They could generate five functional activities in each of the areas presented. You may want to divide parents into small groups according to the ages of their children.***

2. Age-appropriate Skills and Materials

Skills and materials selected for use in a functional curriculum should match the chronological age of students regardless of their developmental age. In addition, classroom decor and teaching environments should also reflect the chronological ages of students. For example, appropriate classroom decor and leisure activities for 15 year old students include posters of rock stars and current movies, listening to classical jazz or rock 'n roll music, and looking at magazines or operating a switch to activate a hand-held video game. Providing opportunities for students to participate in age-appropriate activities may help encourage interactions with nondisabled peers.

3. Functional and Meaningful Skills

***Display Overhead 12 and refer to it while you present the following information.***

Skills selected for instruction should be functional and meaningful to the student. To determine if a skill is meaningful and functional, two questions need to be asked. First, "If the student is not able to perform the skill, is it important enough to have someone perform it for him or

her?" (Brown et al., 1979). For example, if the student is not able to brush her teeth, is it important enough to have someone do it for her? Or, if the student is not able to sort red, yellow, and blue bears into butter tubs, is it important to have someone else do it for her? Another question to ask in order to determine whether a skill is functional is, "Can you see yourself performing the skill in everyday life?" (Wilcox, 1989). For example, can you see yourself putting away work materials? If the answer is yes, the skill is probably functional.

4. Parent or Caregiver Preference

***Consider that many participants are parents as you discuss this next section.***

Parents and caregivers are important members of the educational team. Parental input is necessary when developing educational plans for their children. Parents are able to provide information concerning present and future needs of their children by participating as team members. In this way, parents share information that insures the selection of appropriate skills, as well as activities and environments for instruction.

The functional curriculum process requires the completion of a parent or caregiver inventory that is conducted by the educator in the student's home. When interviews are conducted in the student's home environment, the educator has the opportunity to observe student and family interactions in a setting familiar to the student. Additionally, parents and caregivers are often the best resources for identifying student preference and choice-making behaviors which frequently are overlooked by others.

***You may want to ask participants whether they have comments, questions, or particular experiences to share.***

5. Student Preferences and Choices

Recently, educators have recognized the importance of acknowledging preferences and choice-making behaviors of students with dual sensory and multiple impairments. However, it may be difficult to determine student preferences and choice-making if they use unintentional communicative behaviors (e.g., inconsistent eye blinks, body movements, or oral motor movements), or if they do not yet use a symbol system that would clearly indicate a preference or choice (e.g., signing, "I want milk," or indicating, "I do not like P.E." on an augmentative communication board).

A student preference/choice inventory is part of the functional curriculum development process. Students are observed during interactions with various materials and activities, and their expressions of likes and dislikes are recorded. Parents and caregivers may also provide the following types of information about their children; activities they enjoy, what time of day they are the most active, or if they like activities at a fast, moderate, or slow pace. This information is taken into consideration when selecting target activities and skills for the student's educational program.

***Again, solicit comments and first hand experiences from parents and caregivers in the audience.***

6. Instruction in Natural Environments

Instruction occurs in those settings where the student will actually perform the activity. This means that the student's educational program will frequently occur outside the classroom setting, such as conducting a money exchange program in a bank or working on folding skills at a local business. It also means that a portion of the student's day will be conducted in regular education activities, such as learning how to use the microwave in home economics

class or activating a switch to record a reading group assignment. Providing instruction in the location where the activity actually occurs increases the likelihood that students will learn skills more quickly and be able to transfer acquired skills from one setting to the next. This is especially important for students with dual sensory and multiple impairments as they often have difficulty generalizing newly acquired skills.

Instruction in natural environments involves regularly scheduled, systematic, and one to one or small group sessions (i.e., no more than two students with disabilities). An example is going to the group home in the morning to conduct bed making, laundry, and food preparation activities three days a week, two hours per day for two students who are within the 16-21 age range. Likewise, same-age students may participate in elective classes with their nondisabled peers, such as art, choir, or woodworking. (Remember, the amount of time spent in classroom and community instruction will vary depending upon the age of the student). This combined scheduling arrangement provides students with many opportunities to practice skills within both school and non-school environments.

***At this point, you could ask parents and caregivers in the audience to discuss which activities in the programs for their children are taught or could be taught in the community.***

7. Partial Participation

No students, regardless of the severity of their disabling conditions, should be excluded from participating in any instructional activity within a functional curriculum approach. Even students with the most profound disabling conditions can be included in some aspect of an activity. All that is necessary for a student to partially participate in an activity is one repeated movement, whether it is momentary fixation, a foot moving sideways, or eyebrows raising up and down (Baumgart et al., 1983).

Some students with dual sensory and multiple impairments may not be able to perform all the steps of a skill sequence without assistance or adaptations. Different types of adaptations are available or can be made. These adaptations will allow the student to participate in activities as fully as possible. Adaptations may include:

***Display Overhead 13 and use it as an outline for the following information.***

- physical and prosthetic devices
  1) tactile communication board accompanied by written words on the back of the board, or
  2) an electronic switch used to operate a blender.
- altering skill sequences
  1) sitting down on a locker room bench before removing a bathing suit, or
  2) continuously pressing a pop selection button while putting money into the vending machine.
- altering rules
  1) allowing the student one and one-half gym periods to compensate for the time it takes to travel to gym class, change into gym clothes, participate in gym, shower, dress, and travel back to class, or
  2) having a nondisabled co-worker punch the time clock when the student arrives and departs from the job site.
- providing instructional prompts
  1) tapping a student's elbow as a signal to reach for an item on a shelf in the grocery store, or
  2) gesturing to keep voices lowered while working in a library.
- altering environmental conditions
  1) providing non-glare surfaces in the work environments, or
  2) amplifying the intercom system.
- altering social and attitudinal factors

1) conducting inservice training for peers on disability awareness by having students rotate through different stations that simulate varying disabilities, or

2) describing the appearance of seizure activity to the student's work supervisor and nondisabled co-workers, as well as instructing them on procedures to follow should a seizure occur at work.

To determine whether or not adaptations are required, educators and parents need to ask the question, "Will the student be excluded from the activity without the adaptation?" (Mirenda, 1987). For example, dressing skills were selected by parents as a priority skill to be learned by the child. Several questions were asked by the student's teacher. "Would the student be excluded from dressing activities since she had limited range of motion in her upper and lower extremities?" Probably yes. "Would she need some type of adaptation in order to perform the skills?" Definitely yes. The adaptations selected for this student were adjusting the skill sequence and using instructional prompts. The sleeve was put on her arm to the point where the opening just covered her fist. She was given a touch cue on the wrist and a verbal prompt that signaled her to put her fist through the sleeve. These instructional adaptations allowed her to participate in the dressing sequence.

8. Integration with Nondisabled Peers

Students with dual sensory and multiple impairments have greater opportunities to interact with their nondisabled peers when they attend chronologically age-appropriate neighborhood schools (e.g., 12-15 years old students attend a junior high or middle school, and 16-18 year old students attend high school) and participate in a functional curriculum. These conditions can assist students in developing friendships that may last during their school careers or throughout their lives.

Part of a functional curriculum includes student participation in classroom environments within

a school setting. Students with dual sensory and multiple impairments may participate in activities with their nondisabled peers, such as library, gym, music, choir, art, homeroom, woodshop, cooking, reading, or extracurricular activities, such as sporting events, pep rallies, theatrical productions, student government, and variety clubs. Nondisabled peers also may accompany a student to community training environments, such as McDonald's to eat lunch, a video arcade at a local mall to play electronic games, or to a store to shop for clothes.

Some functional curriculum models suggest placement of students with dual sensory and multiple impairments in the grade level classroom of their nondisabled peers with appropriate support services. For example, a six year old student with a mild hearing loss, severe visual impairment, and severe mental retardation is placed in a regular education first grade classroom. Part of his school day is spent with a paraprofessional participating in instructional activities that correspond with the activities of his nondisabled peers. During reading groups, he activates a switch which records the voices of students reading the story, and during attendance, lunch count, and the pledge of allegiance, he reviews his object schedule with a paraprofessional so he can anticipate the events of the day.

There are many models available which promote a smooth transition of students into integrated environments. Some examples include conducting a Disability Awareness Week, having students experience simulated disability conditions, or developing a peer tutor program. These are just a few of the preparation activities that have been used successfully. Whichever model is selected for integration, it is important for parents and educators to systematically plan and prepare regular education personnel, parents, and students prior to placing students in regular education classrooms.

***At this point, you may choose to have parents discuss integration activities in which their children are involved, or activities their children could be involved in at school.***

9. Transdisciplinary Team Involvement

Transdisciplinary team involvement is helpful when using a functional curriculum approach. A transdisciplinary team is one in which most of the professionals serve as consultants rather than in "direct service" roles. A team leader (sometimes called program manager) is identified for each student. The team leader, typically the teacher, coordinates the contributions of all team members to ensure that recommended therapeutic intervention strategies are integrated throughout the school day.

The responsibilities of teachers, paraprofessionals, related services personnel, and parents have changed from their traditional roles to support this integrated service delivery system. The teacher assumes the responsibility of coordinating information from various related services personnel to ensure that goals and objectives are met, and to ensure the infusion of skills (e.g., motor, communication, cognitive, and sensory) across life areas. Related services personnel (e.g., physical therapist, occupational therapist, vision consultant, orientation and mobility instructor, speech/language therapist, or audiologist) may have to assess and instruct students on specific skills in both school and community environments. These specialists are discouraged from providing instruction in isolated therapy rooms during time periods that do not follow a daily schedule typical for nondisabled peers. For example, the physical therapist (PT) accompanies two students to a grocery store in the community every Friday afternoon. The PT assesses one student on motor functioning and provides instruction to the other student on transferring from the car to the walker, balance and gait training, and body orientation. While shopping, the PT prompts one student to use an amplified voice calculator with raised numerals and assists the other student match sample textures on her communication wallet that she uses for a shopping list. The PT collects data and makes notes on any physical adaptations the students may need to help them perform shopping skills more independently.

In this scenario, the PT delivered instruction taught to him by the orientation and mobility instructor (e.g., body orientation and travel), a communication program (e.g., match-to-sample

with the tactile communication wallet) as taught to him by the speech/language therapist, and an academic program (e.g., amplified voice calculator with raised numerals) taught to him by the teacher. Upon returning to school, he will share the data with the other team members. This example represents the infusion of skills during training in a life area and the collaborative effort of team members. This method of instruction increases the likelihood that generalization will occur as students are provided with many opportunities to practice motor, communication, cognitive, and sensory skills across a variety of settings, individuals, and materials.

## F. Training Activities

***You may want to select one or more of the following activities for your audience if these were not used earlier during the session.***

1. Generate five functional activities in each life area (i.e., work, independent living, recreation/leisure, regular education, and community life) that parents and caregivers would consider for their sons or daughters. Families may want to divide into groups according to the ages of their sons or daughters (e.g., preschool, elementary, junior high, and secondary) depending upon the size of the group.

2. Have parents and caregivers discuss which activities of their children are currently being conducted in the community or could be conducted in the community.

3. Have parents discuss any integration activities in which their children are involved or activities in which their children could be involved at school.

## V. Content - Part III: The Functional Curriculum Process

### A. Module Delivery Organization

1. Lecture: 3

2. Amount of Time: One hour

3. Specific Outcome Competencies

   Participants will become aware of the following:

   a) The steps contained in the functional curriculum process.

### B. Content Overview Outline

1. The Process

### C. Suggested Readings for the Trainer


Conn-Powers, M., & Thousand, J. (Eds.). (1983). *Burlington's making special friends project (Vols. I-VI)*. Burlington: University of Vermont, Center for Developmental Disabilities.

Houghton, J. (1986, August). *Community intensive instruction for students with severe multiple handicaps.* Paper presented at the SMH/D-B Summer Task Force Committee, Vasar, KS.

Kansas State Department of Education. (Director/Producer). (1987). *Vocational training in community-based instruction for students with severe multiple handicaps and deaf-blindness* [Videotape]. Emporia, KS: Innovative Communications, Inc.

Orelove, F. P., & Sobsey, D. (1987). Curriculum and instructional programming. *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 157-181). Baltimore: Paul H. Brookes.

Turnbull, A. P., Brotherson, M. J., Bronicki, G. J., Benson, H. A., Houghton, J., Roeder-Gordon, C., & Summers, J. A. (1985). Student preference/choice survey. *How to plan for my child's adult future: A three part process to future planning* (pp. 6-13). Lawrence: University of Kansas

Affiliated Facility, Bureau of Child Research.

York, J. (1985, September). *Strategies for developing individualized functional curriculum for students with developmental disabilities.* Paper presented at the Statewide Conference, Bismarck, ND.

**D. Introduction to the Content, Part III**

***Introduce this session by telling participants that the purpose of this module is to present the steps involved in the functional curriculum process.***

**E. Specific Content**

1. The Process

The process of planning a functional curriculum is comprehensive and can be rather complex. It involves the design of individualized instructional programs based on input from parents and caregivers, student preferences and choices, assessment of present and future environments, identification of skills necessary to function within those environments, assessment of student performance, and development of instructional programs including any adaptations the student may need in order to partially participate in the activities.

***Display Overhead 14 as you discuss review each stage of the process. Ask participants if they have questions about the process.***

a. Parent inventories. Before children are born, many parents set goals and develop ideas about where their children are going to live, what they are going to be when they grow up, and how their children are going to be educated. As their children grow, parents and caregivers control the environments and activities in which their children participate. They also have a great deal of knowledge regarding the capabilities, preferences, and skills of

their children. This holds true for parents of children in regular or special education programs. However, since parents of children enrolled in special education programs may provide additional support to the team, they should always be involved in decision-making regarding the educational future of their children.

The first step in the functional curriculum process is to conduct a parent inventory. Teachers conduct parent inventories to determine the parents' priority objectives for their children, how they perceive the current levels of functioning of their children, and what they perceive as the present and future needs of their children.

***At this point, you may want to ask participants to generate a list of reasons why parent inventories are important. Record their comments on a transparency, chalkboard, or flip chart. Add any of the following reasons that might not have been included.***

Parent inventories are important sources of information because they:

i. contain information regarding parent preferences for skills that they would like their child to perform across five life areas;

ii. help teachers identify target environments in which these skills can be assessed and taught;

iii. assist teachers in determining their students' current levels of functioning within life areas; and

iv. provide opportunities to discuss transition needs from school to post-school environments.

The following is a summary of items typically found on a parent inventory.

***Display Overhead 15 and refer to it as you review each item.***

i. Identify the type of activities in which your child participates and the level of

participation.

ii. List activities by order of importance that you want your child to learn.

iii. Identify future living arrangements other than home.

iv. Identify your child's preferences for occupations or living arrangements.

v. Identify those occupations or living arrangements that would be particularly undesirable to your child.

***Distribute Handout 3. Let participants review and comment about items listed on the inventory. Ask them if they have completed a similar document and if they found it useful.***

b. Student preference/choice surveys. Student preference/choice surveys are another means to assist in educational planning. Using activities that the student prefers may increase the student's level of motivation, make the activity more enjoyable for the student, and has the potential to reduce behavior problems.

Sometimes it is difficult to determine preferences and choices of students, especially those students with limited communication skills. Interviews with families and friends or observation of the student's responses in a variety of environments and activities, as well as with different materials and people will help determine student preferences.

***Display Overhead 16 and refer to it as you review each item.***

The following is a summary of items typically listed on a student preference/choice survey.

i. The primary modes of communicating likes and dislikes.

ii. How the child or youth makes a selection when given a choice.

iii. What kinds of choices the child has an opportunity to make.

iv. How many opportunities per day the child has to make choices.

v. Related environmental conditions that the child prefers (e.g., likes to be alone or with a large group of people; or likes highly repetitive activities or non-repetitive activities).

vi. The times of day the child is the most active and the most tired.

***Distribute Handout 4. Let participants review and make comments. Ask them how they anticipate their own children would respond?***

c. Life areas. Each life area is made up of a body of curricular content that is relevant to the student's chronological age and participation in least restrictive environments. Life areas are identified by parents and educators as important for the smooth transition to future instructional, work, or residential settings, as well as current life functioning. These life areas are relevant to both students with dual sensory and multiple impairments and their nondisabled peers. The five life areas are:

***Display Overhead 17 and refer to it as you review each life area.***

- independent living (i.e., domestic),
- community life,
- work,
- recreation/leisure, and
- regular education.

d. Environments. Life areas are divided into environments. Environments are places where students currently function or will function in the future. For example, the community life is a life area. Environments within a community are grocery stores, shopping malls, libraries, and post offices. Environments located within the independent living life area are student homes, group homes, apartment settings, and respite care facilities. Environments that could be included in the work life area are hospitals, restaurants, and banks. Possible environments for recreation/leisure life areas may include movie theaters,

bowling alleys, parks, video arcades, and the YMCA. Environments that may be included in the regular education life area are homeroom, woodshop, and 6th grade math class.

e. Subenvironments. Environments identified for each life area are divided into sections. These sections are known as subenvironments. For example:

***Display Overheads 18-22 to illustrate each of the following examples.***

1. Life Area: Independent living

   Environment: Group home

   **Subenvironments**: bathroom, bedroom, garage, kitchen, dining room, deck or patio, living room, basement

2. Life Area: Community life

   Environment: Grocery store

   **Subenvironments**: parking lot, entry, shopping areas by category (e.g., dairy or produce), checkout lanes

3. Life Area: Work

   Environment: Hospital

   **Subenvironments**: parking lot, entry, employee lounge, cafeteria or lunchroom, janitor's area, hallways, assigned patients' rooms, employee bathroom, employee locker room

4. Life Area: Recreation/leisure

   Environment: Bowling alley

   **Subenvironments**: parking lot, entry, locker area, shoe counter, ball rack, lanes, snack bar, bathroom

5. Life Area: Regular education

   Environment: Homeroom

   **Subenvironments**: doorway, desk area, blackboard

f. Activities. Subenvironments are divided into activities. Activities conducted in subenvironments are those typically performed by the student's nondisabled peers. For example:

***Display Overheads 23-27 to illustrate each of the following examples.***

1. Life Area: Independent living
   Environment: Student's home
   Subenvironment: Bathroom
   **Activity:** Brush teeth
2. Life Area: Community life
   Environment: Post office
   Subenvironment: Counter
   **Activity:** Purchase stamps
3. Life Area: Work
   Environment: Lawn & Garden Center
   Subenvironment: Greenhouse
   **Activity:** Water plants
4. Life Area: Recreation/leisure
   Environment: Bowling alley
   Subenvironment: Shoe counter
   **Activity:** Rent bowling shoes
5. Life Area: Regular education
   Environment: Homeroom
   Subenvironment: Doorway
   **Activity:** Enter classroom

g. Skill sequences. Skill sequences are developed after activities have been identified in

each life area. Skill sequences are the logical order of events that occur within a given activity and are based on those skills demonstrated by nondisabled peers. For example:

***Display Overheads 28-32 to illustrate each of the following examples.***

1. Life Area: Independent living

   Environment: Apartment

   Subenvironment: Bedroom

   Activity: Dust

   **Skills:**

   a. Look for cleaning materials.

   b. Obtain cleaning materials.

   c. Prepare cleaning materials.

   d. Dust dresser.

   e. Check to see if area is dust free.

   f. Move cleaning materials to the next piece of furniture (repeat steps d & e).

   g. Put cleaning materials away.

2. Life Area: Community life

   Environment: Bank

   Subenvironment: Safety deposit box area

   Activity: Place contents in a safety deposit box

   **Skills:**

   a. Request assistance.

   b. Follow bank officer.

   c. Sign signature sheet.

   d. Remove keys.

   e. Locate box.

   f. Open box.

g. Place contents in safety deposit box.

h. Lock box.

i. Leave area.

3. Life Area: Work

Environment: Theater

Subenvironment: Janitor's room

Activity: Wash seats

**Skills:**

a. Obtain equipment.

b. Prepare for cleaning.

c. Wash seat.

d. Check to see if seat is dirt free.

e. Move to next seat (repeat c & d).

f. Put materials away.

4. Life Area: Recreation/leisure

Environment: Restaurant

Subenvironment: Cafeteria line

Activity: Select food

**Skills:**

a. Locate tray and utensils.

b. Push tray.

c. Scan choices.

d. Make selection.

e. Request entree.

f. Reach for food.

g. Move tray to desserts (repeat c-f proceeding through the entire line).

h. Obtain receipt.

i. Pay for food.

5. Life Area: Regular education

   Environment: Art classroom

   Subenvironment: Sink area in classroom

   Activity: Clean paint brushes

   **Skills:**

   a. Locate sink.

   b. Take paintbrushes to sink.

   c. Turn on faucet.

   d. Adjust temperature.

   e. Place paintbrushes under stream of water.

   f. Rotate brushes from side to side until they are clean.

   g. Turn off water.

   h. Shake excess water off brushes.

   i. Dry brushes with paper towel.

   j. Put brushes away.

h. Discrepancy analyses. Discrepancy analyses are comparisons between skills of a nondisabled person and those of a person with disabilities who participates in the same activity within the same environment. A discrepancy analysis is used to identify those skills that the student with disabilities performs correctly or incorrectly, and to determine what skills are absent from the latter student's repertoire. Based upon information obtained from the discrepancy analysis, the teacher can make decisions on what steps of the skill sequence should be adapted, what levels of assistance are needed to perform the skill, and what steps are performed independently by the student.

***Distribute Handout 5. Ask if two or more participants have examples they would like to share with the group.***

i. Instructional programs. Instructional programs are developed based upon the student's

individual needs. These needs are identified by the transdisciplinary team. Their decisions are based on results of the inventories, surveys, formal and informal assessment processes, and ecological analyses. Team members then plan instructional goals and objectives for the school year.

Team members are also responsible for determining what types of adaptations are needed for each student to participate in the instructional activities. To review, these adaptations may be one or a combination of the following:

***Display Overhead 33 as you list adaptations.***

- physical and prosthetic devices,
- altering skill sequences,
- altering rules,
- providing instructional prompts,
- altering environmental conditions, or
- altering social and attitudinal factors.

**F. Training Activities**

***Select one or more of the following activities as time permits and depending on preferences of the group.***

1. Have parents complete a parent inventory (Handout 3). Ask for volunteers to present a section of the inventory before one large group or small groups.

2. Have parents complete a student preference/choice survey (Handout 4). Ask for volunteers to present an area of the survey before one large group or small groups.

3. Have parents divide into small groups. Assign each group a life area and have them identify at least two environments within that life area, and subenvironments for each environment. If time permits, have participants identify two activities within each environment.

4. Have parents view either of the two training tapes listed in the Suggested Readings. Ask for their comments.

## VI. Content - Part IV: Parental Involvement in a Functional Curriculum

### A. Module Delivery Organization

1. Lecture Number: 4

2. Amount of Time: One hour

3. Specific Outcome Competencies

   Participants will become aware of the following:

   a) The quality indicators of a home-school partnership.

   b) The conditions affecting levels of parental involvement.

### B. Content Overview Outline

1. Parent and Educator Roles in the Home-School Partnership

2. Levels of Parental Involvement in the Home-School Partnership

### C. Suggested Readings for the Trainer


Bronicki, G., & Turnbull, A. (1987). Family-professional interactions. In M. E. Snell (Ed.), *Systematic instruction of persons with severe handicaps (3rd ed.)* (pp. 9-35). Columbus, OH: Charles E. Merrill.

Brotherson, M. J., Turnbull, A. P., Bronicki, G. J., Houghton, J., Roeder-Gordon, C., Summers, J. A., & Turnbull, H. R. (1988). Transition into adulthood: Parental planning for sons and daughters with disabilities. *Education and Training in Mental Retardation, 23* (2), 165-174.

Fox, T. (1987). *Best practice guidelines for students with intensive educational needs.* Burlington: University of Vermont, Center for Developmental Disabilities.

Gaylord-Ross, R., & Holvoet, J. (Eds.). (1985). Home-school interactions. *Strategies for educating students with severe handicaps* (pp. 251-279). Boston: Little, Brown, & Company.

Orelove, F. P., & Sobsey, D. (1987). Designing transdisciplinary services. *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 1-24). Baltimore: Paul H. Brookes.

MacMillan, D. L., & Turnbull, A. P. (1983). Parent involvement with special education: Respecting individual preferences. *Education and Training of the Mentally Retarded, 18,* 4-9.

Snell, M. E., & Beckman-Brindley, S. (1984). Family involvement in intervention with children having severe handicaps. *The Journal of the Association for the Severely Handicapped, 9,* 213-230.

Thousand, J. (1987, Fall). Best educational practices of 1987: Effectively integrating students with moderate/severe handicaps into their local schools and communities. *The Decision-maker,* p. 1-2.

Turnbull, A. P. (1985). Parental participation in the IEP process. In J. A. Mulick & S. M. Pueschel (Eds.), *Parent-professional participation in developmental disability services: Foundations and prospects.* Cambridge, MA: Ware Press.

Turnbull, A. P., & Turnbull, H. R. (1982). Parent involvement in the education of handicapped children: A critique. *Mental Retardation, 20* (3), 115-122.

Turnbull, H. R., Turnbull, A. P., Bronicki, G. J., Summers, J. A., & Roeder-Gordon, C. (1989). *Disability and the family: A guide to decisions for adulthood.* Baltimore: Paul H. Brookes.

**D. Introduction to the Content, Part IV**

***The purpose of this session is to review the parent and educator roles in the home-school partnership and to discuss levels of parent involvement within this partnership. Display Overhead 34 as you review topics with participants.***

1. Parent and Educator Roles in the Home-School Partnership

2. Level of Parental Involvement in the Home-School Partnership

**E. Specific Content**

1. Parent and Educator Roles in the Home-School Partnership

Best educational practices for students with dual sensory and multiple impairments are those practices used to enhance and promote functional, integrated, transitional, and age-appropriate programs individualized to meet students' needs. One of nine areas included in an analysis of "best practices" is home-school partnership.

***Display Overhead 35 as you review the content.***

Home-school partnership has been defined by the following quality indicators:

a. Parents should have frequent opportunities to visit the classroom and to interact with teachers and school staff.

b. There should be an established system for regular parent and teacher communication between school and home (in addition to the I.E.P. process).

c. There should be an established system for providing parents with information about available community resources (e.g., recreation program, counseling, or respite care).

d. In addition to required I.E.P. meetings, the student's parents and siblings should have the opportunity to participate in the parent interview process to determine priority needs.

e. Students' I.E.P.s and written instructional programs should reflect concerns expressed by parents (Fox, 1987).

This partnership is inherent in the functional curriculum process as there are built-in methods for parent and educator interactions, such as parent interviews and parents as members of the transdisciplinary team.

Both parents and educators have roles and responsibilities within the partnership which are important in the development of the student's educational program.

***Display Overhead 36 as you review the following information.***

The role of parents as members of the educational team is to;

a. provide information about how their children perform at home,

b. provide information about future goals they have for their children,

c. describe activities they would like included on the educational plans of their children,

d. identify preferences of their children, and

e. identify community and school environments that they would like included as training sites on educational plans of their children.

***Display Overhead 37 as you review the following information.***

The primary role of the educator as a member of the student's educational team is:

a. to assess and instruct the student to participate in activities and perform skills identified by team members;

b. to aid parents in accessing support services as needed;

c. to inform team members of changes in the student's performance or physical condition;

d. to conduct regularly scheduled meetings to discuss the student's performance; and

e. to assist in coordinating input from various team members.

***This is a good point at which to pause and ask if anyone has questions or comments.***

2. Levels of Parental Involvement in the Home-School Partnership

Parent and caregiver participation in decision-making and problem solving is an integral part of the functional curriculum process. The willingness of parents to share knowledge about the preferences, needs, and abilities of their children, as well as their family's functioning and future

goals can contribute significantly to the educational team. These contributions provide a basis for developing cohesive and goal directed plans that are relevant throughout students' school careers.

Even though full and active parental participation is perceived as ideal, it may not be feasible for some parents nor the choice for others. Levels of parent participation are impacted by various demands affecting the family system. External demands such as jobs, finances, and meeting the needs of the immediate family members differ from one family to the next. Cultural influences, religious values, and traditions vary. Additionally, coping strategies and levels of support are not the same for every family of a child with dual sensory and multiple impairments. In order to attempt a balance, meet the priority needs of a family member, or to increase their coping strategies caused by a medical setback, parental involvement may fluctuate. They may still be active participants in the education of their children; however, they may participate at different levels than they had previously.

***Pause here and ask if there are parents in the audience who would like to share some of their experiences in working with educators.***

Educators who work closely with parents should be sensitive to the demands parents experience. Also, educators should adapt to the parent's style and amount of involvement in the child's educational program. This can be demonstrated by locating sources of support, scheduling meetings at times convenient for parents, making home visits periodically, or reducing the number of times data are collected on home programs.

Whatever the family is currently experiencing or whatever the parents participation style may be, educators and parents should keep the lines of communication open between home and school. This can be accomplished by sending notes back and forth on a daily basis. These notes may contain information concerning changes in the student's condition, progress made

towards specific objectives, or notification of parent support meetings. One method of parent-school communication is to send a videotape of the student performing instructional activities in the community home with the student.

Another method is the use of an activity scrapbook. Parts of different objects or activities symbolize what the student participated in during the weekend or the previous evening. The object symbols are contained in a scrapbook. When the student returns to school the following day, the teacher or a nondisabled peer may use the scrapbook to ask the student questions about his or her weekend. For example, attached to a scrapbook page of a 15 year old student with severe visual impairments and a moderate hearing loss was a ticket stub, part of a paper coke cup, a napkin with mustard smeared on it, and a baseball card of Bobby Bonillia (a Pittsburgh Pirate baseball player). A friend asked the student about her weekend and what she did at the baseball game. Before asking her questions about specific items in the scrapbook, he let the student feel and smell each item. She was able to respond to her friend's interactions by using her communication board.

These are just a few of the ways parents and educators can facilitate communication between home and school. Keeping the lines of communication open and respecting the changing needs of families helps strengthen the home-school partnership.

**F. Training Activities**

1. Ask parents and caregivers to identify the level of involvement that they would like to have with the educational program of their children.

2. Ask parents to generate the expectations they have of the educator in providing;
   a. support,
   b. resources,
   c. information about the skills and needs of their children, and

d. expertise in helping to problem solve any difficulties their children may be experiencing at home.

## VII. Sources for Additional Information

Bronicki, G. J., & Turnbull, A. P. (1987). Family-professional interactions. In M. Snell (Ed.), *Systematic instruction of persons with severe handicaps (3rd ed.)* (pp. 9-36). Columbus, OH: Charles E. Merrill.

Publisher's address: Charles E. Merrill Publishing Company
1300 Alum Creek Drive
Columbus, OH 43209

Phone Number: (614) 258-8441

Cost of book: $34.95

Carney, I. (1987). Working with families. In F. P. Orelove & D. Sobsey (Eds.), *Instruction of learners with severe multiple disabilities: A transdisciplinary approach* (pp. 315-338) Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O Box 10624
Baltimore, MD 21285-0624

Phone Number: (800) 638-3775

Cost of book: $28.00

Falvey, M. (1986). *Community-based curriculum: Instructional strategies for students with severe handicaps.* Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O Box 10624
Baltimore, MD 21285-0624

Phone Number: (800) 638-3775

Cost of book: $21.00

Gaylord-Ross, R., & Holvoet, J. (Eds.). (1985). *Strategies for educating students with severe handicaps.*

Glenview, IL: Scott Foresman.

Publisher's address: Scott Foresman Publishers
1900 East Lake Avenue
Glenview, IL 60025

Phone Number: (800) 782-2665

Cost of book: $31.95

Nietupski, J., & Hamre-Nietupski, S. (1987). An ecological-approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 225-254). Baltimore: Paul H. Brookes.

Publisher's address: Paul H. Brookes Publishing Company
P.O Box 10624
Baltimore, MD 21285-0624

Phone Number: (800) 638-3775

Cost of book: $29.95

Wolfensberger, W. (Ed.). (1972). *The principle of normalization in human services.* Toronto, Canada: G. Allan Roeher Institute.

Publisher's address: National Reference Service
The G. Allan Roeher Institute
Kinsmen Building, York University Campus
4700 Keele Street
Downsview, Ontario M3J1P3

Phone Number: (416) 661-9611

Cost of book: $12.50

## VIII. Evaluation Measures

### A. Pre/Post Evaluation

**The Functional Approach to Curriculum Development: Parent Training Module**

*Wickham & Houghton*

Name _____ Pre _____

Date _____ Post _____

# Points Possible: 18

Length of Time Allowed: 30 minutes

1. List one characteristic of a developmental curriculum. (1 p.)

2. List two benefits of a functional curriculum. (2 pts.)

3. List four of the nine components of a functional curriculum. (4 pts.)

4. Define a functional skill. (1 pt.)

5. List one benefit of conducting instruction in the environment in which the activity will occur. (1 pt.)

6. List one role of the parent in the educational team. (1 pt.)

7. Describe one condition that may effect the level of parental involvement. (1 pt.)

8. Describe one strategy to facilitate communication between home and school. (1 pt.)

9. List one subenvironment for the independent living and recreation/leisure life areas. Identify two activities that could be conducted in each environment. (6 pts.)

**B. Answer Key**

1. Any one of the following may be considered correct.

   a. Development is measured in domains (e.g. motor, cognitive, sensory, or communication).
   b. Skill acquisition is sequenced according to the growth of nondisabled children.
   c. Children are not allowed to progress until lower level (i.e., earlier) skills are mastered.

2. Any two of the following may be considered correct.

   a. Promotes generalization and transfer of skills from one environment to the next.
   b. Includes family input and involvement in decision-making.
   c. Activities are chosen that are functional and meaningful for the student.
   d. Skills taught prepare the student for transition to the next environment or adult environments.

3. Any four of the following may be considered correct.

   a. Functional and meaningful skills
   b. Age-appropriate skills and materials
   c. Student preference and choice behaviors
   d. Parent preferences
   e. Instruction in natural environments
   f. Interactions with nondisabled peers
   g. Transdisciplinary involvement
   h. Partial participation
   i. Transition to the next environment or adult environments

4. Either statement should be considered correct.

   a. If the student does not perform the skill, is it important to have someone do it for her?
   b. Can you see yourself doing the activity?

5. Any one of the following may be considered correct.

   a. It increases the chances that skill generalization will occur.
   b. It is more meaningful to the student as it is not conducted in artificial environments with artificial materials that have little or no meaning.
   c. There are more opportunities for integration with nondisabled peers and community members.

6. Any one of the following may be considered correct.

   a. Provide information about the children's performance at home.
   b. Choose skills and activities that they would like their children to learn.
   c. Provide information about future environments.
   d. Help select long and short term goals for their children.

7. Any one of the following may be considered correct.

   a. Finances
   b. Coping strategies
   c. Levels of support
   d. Demands or needs of other family members
   e. Jobs

8. Any one of the following may be considered correct.

   a. Daily log
   b. Parent meetings
   c. Joint home-school programs
   d. Activity book

9. Any two subenvironments parents list with accompanying activities (at least two per subenvironment may be considered correct). Use the text as a reference.

C. **Participant Satisfaction Evaluation**

**A Series of Training Modules**
**on Educating Children and Youth**
**with Dual Sensory and Multiple Impairments**

## Participant Evaluation of Training

**The Functional Approach to Curriculum Development:**
**Parent Training Module**

Trainer: _____ Date of Training: _____

Training Site: _____

Please read each of the following statements carefully and rate each statement using the following key:

| | | | |
|---|---|---|---|
| 1 = Strongly Disagree | (SD) | 4 = Agree | (A) |
| 2 = Disagree | (D) | 5 = Strongly Agree | (SA) |
| 3 = Undecided | (U) | | |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 1. | Overall, the content of this training met my expectations. | 1 | 2 | 3 | 4 | 5 |
| 2. | I learned useful information about benefits of a functional curriculum as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 3. | I learned useful information about components of a functional curriculum as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 4. | I learned useful information about roles of parents and educators in program development as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 5. | The training provided specific information that I can apply. | 1 | 2 | 3 | 4 | 5 |
| 6. | The training content was applicable to my needs as a parent or family member. | 1 | 2 | 3 | 4 | 5 |
| 7. | Materials available from this training were relevant and beneficial. | 1 | 2 | 3 | 4 | 5 |
| 8. | The trainer demonstrated competence in the area of functional curricula. | 1 | 2 | 3 | 4 | 5 |
| 9. | The trainer communicated clearly and effectively. | 1 | 2 | 3 | 4 | 5 |
| 10. | The trainer was responsive to questions and needs of participants. | 1 | 2 | 3 | 4 | 5 |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 11. | The trainer encouraged active involvement by participants and was able to facilitate group discussion. | 1 | 2 | 3 | 4 | 5 |
| 12. | The trainer was able to effectively present information through utilization of a multisensory approach (i.e., lecture, activities, discussion, overheads, handouts and readings, and videos). | 1 | 2 | 3 | 4 | 5 |

13. Reflecting on these training activities, in what ways do you see yourself implementing this training?

14. What were the strengths of this training?

15. What follow-up needs can you identify for yourself?

16. In what ways could these training activities have been improved?

# Appendix A

## Overhead Transparencies

# CONTENT OUTLINE

1. General Characteristics of Curricula

2. Characteristics of Developmental Curricula

3. Characteristics of Functional Curricula



(Overhead 1)

# MODELS OF CURRICULA

1) The Developmental Model

2) The Functional Model

# DEVELOPMENTAL SKILL DOMAINS

- Receptive and Expressive Communication
- Gross and Fine Motor
- Social and Emotional Development
- Pre-Academic and Academic
- Self-Help
- Pre-vocational and Vocational
- Sensory Skills

(Overhead 3)

# BENEFITS OF A DEVELOPMENTAL CURRICULUM

1. It is a global curriculum.

2. It can be used to target areas which require additional assessment.

3. It can be used to divide skills into component parts.

4. It can be used to compare student performance with early developmental skills.

(Overhead 4)

# LIMITATIONS OF A DEVELOPMENTAL CURRICULUM

1. It follows the sequence of development typical of nondisabled individuals.

2. The primary focus is on the form of the skill rather than the function (Orelove & Sobsey, 1987).

3. Often, materials and skills used in implementing a developmental curriculum are not meaningful or chronologically age-appropriate.

(Overhead 5)

# CHARACTERISTICS OF FUNCTIONAL CURRICULA

1. Chronologically age-appropriate
2. Relevant to performance in integrated settings
3. Reflect the impact of transition to the next environment
4. Meaningful
5. Include student and parent choices
6. Taught in natural environments
7. Designed for all students

(Overhead 6)

# LIFE AREAS IN A FUNCTIONAL CURRICULUM

1. Independent living
2. Work
3. Recreation/leisure
4. Regular education
5. Community life



(Overhead 7)

# BENEFITS OF A FUNCTIONAL CURRICULUM

1. Content is individualized and designed to meet needs of current and future environments (Orelove & Sobsey, 1987).

2. Skill sequences are relevant and meaningful.

3. Instruction is provided in natural environments to increase student learning and decrease the need to program for generalization.

4. There is extensive parent and student input in individual program development.

5. "Top down" versus "bottom up" skills are taught (Orelove & Sobsey, 1987).



(Overhead 8)

# LIMITATIONS OF A FUNCTIONAL CURRICULUM

1. If developmental information is disregarded, it is very likely that skills selected for instruction may be beyond the capabilities of the student (Mirenda & Donnellan, 1986).

2. The approach is very time consuming and schedules are complex.

3. It does not provide instructions or guidelines for deciding what to teach out of the many skills identified (Orelove & Sobsey, 1987).



(Overhead 9)

# COMPONENTS OF A FUNCTIONAL CURRICULUM

1. Life Areas
2. Age-Appropriate Skills and Materials
3. Functional and Meaningful Skills
4. Parent or Caregiver Preferences
5. Student Preferences and Choices
6. Instruction in Natural Environments
7. Partial Participation
8. Integration with Nondisabled Peers
9. Transdisciplinary Involvement



(Overhead 10)

# LIFE AREAS

1. Independent living

2. Work

3. Recreation/leisure

4. Regular education

5. Community life



(Overhead 11)

# TO DETERMINE WHETHER A SKILL IS FUNCTIONAL

**Ask:**

1) If the student cannot perform the skill, is it important enough that someone else will have to do it for him?" (Brown et al., 1979)

2) "Can you see yourself performing the skill in everyday life?" (Wilcox, 1989)



(Overhead 12)

# TYPES OF ADAPTATIONS

1. Physical and Prosthetic Devices

2. Altering Skill Sequences

3. Altering Rules

4. Providing Instructional Prompts

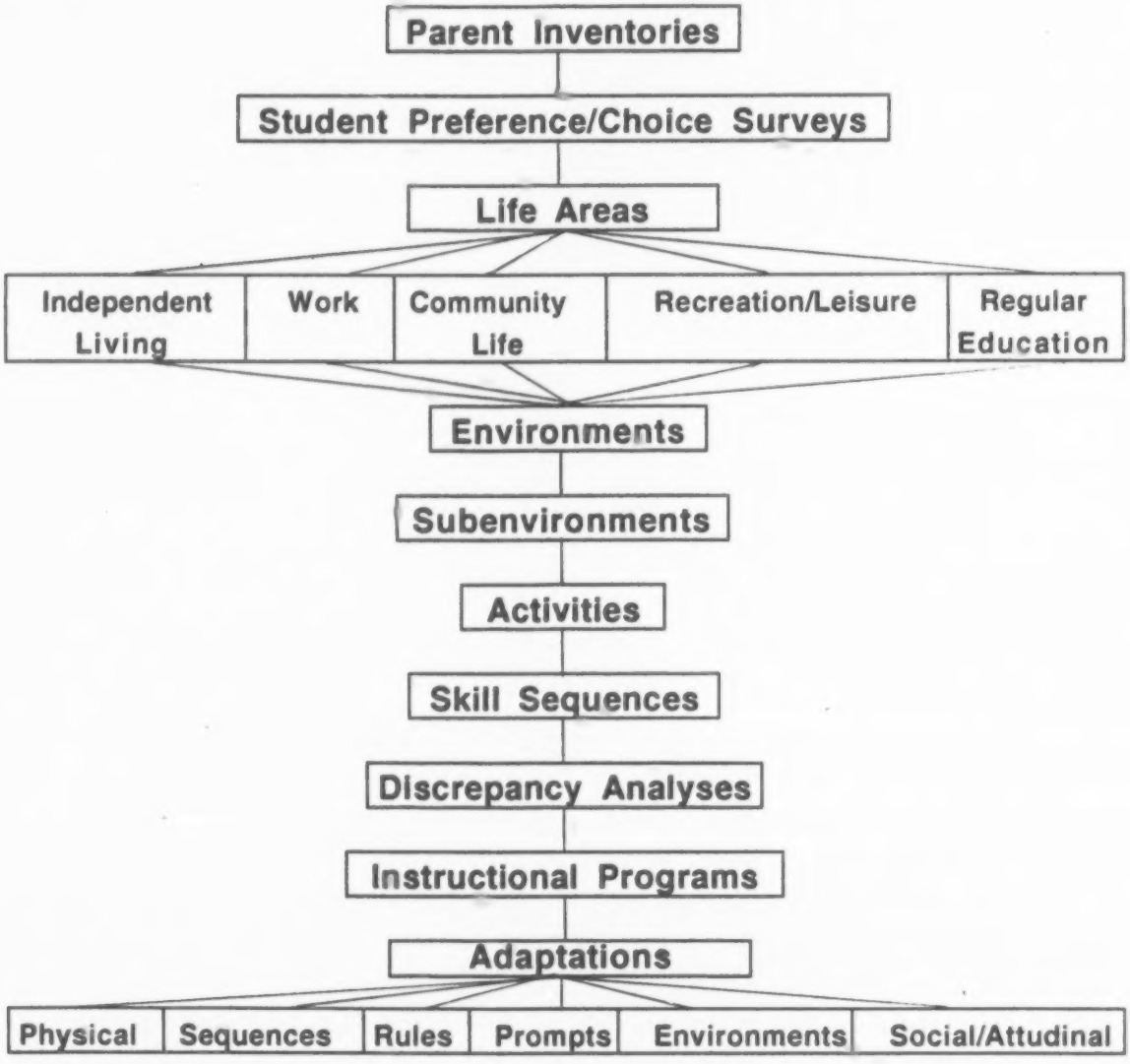
5. Altering Environmental Conditions

6. Altering Social and Attitudinal Factors



(Overhead 13)

# THE FUNCTIONAL CURRICULUM PROCESS




Adapted from: York, J. (1985, September). *Strategies for developing individualized functional curriculum for students with developmental disabilities.* Paper presented at the Statewide Conference, Bismarck, ND.

(Overhead 14)

# PARENT INVENTORY SUMMARY

1. Identify the type of activities in which your children participate and their level of participation.

2. List activities by order of importance that you want your child to learn.

3. Identify future living arrangements other than home.

4. Identify your child's preferences for occupations or living arrangements.

5. Identify those occupations or living arrangements that would be particularly unpleasant to your child.

(Overhead 15)

# STUDENT PREFERENCE/CHOICE SURVEY

1. The primary modes of communicating likes and dislikes.

2. How the child or youth makes a selection when given a choice.

3. What kinds of choices the child has an opportunity to make.

4. How many opportunities per day the child has to make choices.

5. Related environmental conditions that the child prefers.

6. The times of day the child is the most active and the most tired.

(Overhead 16)

# LIFE AREAS

- Independent living
- Work
- Recreation/leisure
- Regular education
- Community life

(Overhead 17)

# SUBENVIRONMENTS

1. Life Area: Independent living

   Environment: Group home

   **Subenvironments:** bathroom, bedroom, garage, kitchen, dining room, deck or patio, living room, basement

(Overhead 18)

# SUBENVIRONMENTS

2. Life Area: Community life

Environment: Grocery store

**Subenvironments:** parking lot, entry, shopping areas by category (e.g., dairy or produce), checkout lanes

(Overhead 19)

# SUBENVIRONMENTS

3. Life Area: Work

Environment: Hospital

**Subenvironments:** parking lot, entry, employee lounge, cafeteria and lunchroom, janitor's area, hallways, assigned patients' rooms, employee bathroom, employee locker room

(Overhead 20)

# SUBENVIRONMENTS

4. Life Area: Recreation/leisure

Environment: Bowling alley

**Subenvironments:** parking lot, entry, locker area, shoe counter, ball rack, lanes, snack bar, bathroom

(Overhead 21)

# SUBENVIRONMENTS

5. Life Area: Regular education class

Environment: Homeroom

**Subenvironments:** doorway, desk area, blackboard

(Overhead 22)

# ACTIVITIES

1. Life Area: Independent living

   Environment: Student's home

   Subenvironment: Bathroom

   **Activity:** Brush teeth



(Overhead 23)

# ACTIVITIES

2. Life Area: Community life

Environment: Post Office

Subenvironment: Counter

**Activity:** Purchase stamps



(Overhead 24)

# ACTIVITIES

3. Life Area: Work

Environment: Lawn & Garden Center

Subenvironment: Greenhouse

**Activity:** Water plants

# ACTIVITIES

4. Life Area: Recreation/leisure

Environment: Bowling alley

Subenvironment: Shoe counter

**Activity:** Rent bowling shoes



(Overhead 26)

# ACTIVITIES

5. Life Area: Regular education

Environment: Homeroom

Subenvironment: Doorway

**Activity:** Enter classroom



(Overhead 27)

# SKILL SEQUENCES

1. Life Area: Independent living

   Environment: Apartment

   Subenvironment: Bedroom

   Activity: Dust

   **Skills:**

   a. Look for cleaning materials.
   b. Obtain cleaning materials.
   c. Prepare cleaning materials.
   d. Dust dresser.
   e. Check to see if area is dust free.
   f. Move cleaning materials to the next piece of furniture (repeat steps d & e).
   g. Put cleaning materials away.



(Overhead 28)

# SKILL SEQUENCES

2. Life Area: Community life

Environment: Bank

Subenvironment: Safety deposit box area

Activity: Place contents in a safety deposit box

**Skills:**

a. Request assistance.
b. Follow bank officer.
c. Sign signature sheet.
d. Remove keys.
e. Locate box.
f. Open box.
g. Place contents in safety deposit box.
h. Lock box.
i. Leave area.



(Overhead 29)

# SKILL SEQUENCES

3. Life Area: Work

   Environment: Theater

   Subenvironment: Seating area

   Activity: Wash seats

   **Skills:**

   a. Obtain equipment.
   b. Prepare for cleaning.
   c. Wash seat.
   d. Check to see if seat is dirt free.
   e. Move to next seat (repeat c & d).
   f. Put materials away.



(Overhead 30)

# SKILL SEQUENCES

4. Life Area: Recreation/leisure

   Environment: Restaurant

   Subenvironment: Cafeteria line

   Activity: Order food

   **Skills:**

   a. Locate tray and utensils.
   b. Push tray.
   c. Scan choices.
   d. Make selection.
   e. Request entree.
   f. Reach for food.
   g. Move tray to desserts (repeat c-f).
   h. Obtain receipt.
   i. Pay for food.

(Overhead 31)

# SKILL SEQUENCES

5. Life Area: Regular education

   Environment: Art classroom

   Subenvironment: Sink area

   Activity: Wash paintbrushes

   **Skills:**

   a. Locate sink.
   b. Take paintbrushes to sink.
   c. Turn on faucet.
   d. Adjust temperature.
   e. Place paintbrushes under stream of water.
   f. Rotate brushes from side to side until they are clean.
   g. Turn off water.
   h. Shake excess water off brushes.
   i. Dry brushes with paper towels.
   j. Put brushes away.

(Overhead 32)

# TYPES OF ADAPTATIONS

1. Physical and Prosthetic Devices

2. Altering Skill Sequences

3. Altering Rules

4. Providing Instructional Prompts

5. Altering Environmental Conditions

6. Altering Social and Attitudinal Factors

(Overhead 33)

# CONTENT OUTLINE

1. Parent and Educator Roles in the Home-School Partnership

2. Level of Parental Involvement in the Home-School Partnership

(Overhead 34)

# HOME-SCHOOL PARTNERSHIPS

a. Parents should have frequent opportunities to visit the classroom and to interact with teachers and school staff.

b. There should be an established system for parent and teacher communication.

c. There should be an established system for providing parents with information about community resources.

d. Students' parents and siblings should have opportunities to participate in the parent interview process to determine priority needs.

e. Students' I.E.P.s and written instructional programs should reflect concerns expressed by parents (Fox, 1987).

(Overhead 35)

# ROLE OF PARENTS

a. Provide information about how their children perform at home.

b. Provide information about future goals they have for their children.

c. Describe activities they would like included on the educational plans of their children.

d. Identify preferences of their children.

e. Identify community and school environments that they would like included as training sites on educational plans of their children.



(Overhead 36)

# ROLE OF THE EDUCATOR

a. To assess and instruct the student on skills identified by team members.

b. To aid the parents in accessing support services as needed.

c. To inform team members of changes in the student's performance or physical condition.

d. To conduct regularly scheduled meetings to discuss the student's performance.

e. To assist in coordinating input from various team members.



(Overhead 37)

## Appendix B

## Handouts

# SUMMARY OF CURRICULUM MODELS

## Developmental Curriculum

- Based upon growth and development of non-disabled children.
- Domains typically include communication, motor, cognition, sensory, social/emotional, self help, and vocational.
- Progression is based on acquisition of skills in a sequence.
- Instructional skills and materials are based on developmental age.

### Benefits

- Covers a large number of skills systematically.
- Helps target areas for additional assessment.
- Divides skills into component parts.
- Used to compare early development.

### Limitations

- Follows developmental sequence of a non-disabled child.
- Focuses on form rather than function of the skill.
- Materials and skills often are not meaningful.

## Functional Curriculum

- Instruction based on current and future needs of the student.
- Skills are taught across the five life areas: independent living, work, recreation/leisure, regular education, and community life.
- Adaptations are developed to increase participation in activities.
- Instructional skills and materials are based on chronological age.

### Benefits

- Uses extensive parental and student input.
- Content highly individualized.
- "Top-down" rather than "bottom-up" model.
- Skill sequences are relevant and meaningful.

### Limitations

- Skills may be selected that are beyond the student's abilities.
- Time consuming and complex scheduling.
- No guidance as to what to teach first.



(Handout 1)

## A Case for Teaching Functional Skills

It is not uncommon to find instances of curricular content for students with moderate to severe disabilities based primarily on information derived from the administration of norm-referenced evaluation instruments. A dilemma often results when an attempt is made to translate test items failed at particular levels or mental ages into actual tasks to be taught. Not only were these evaluation tools never intended to be used in this manner, but the result is that students end up spending a majority of their school day being taught skills that are totally artificial or extremely age-inappropriate. Given the time it takes students with moderate to severe mental disabilities to acquire and maintain skills, there is no time or justification for devoting instruction to teaching items that are selected from a developmentally-based hierarchy of supposed "prerequisite" skills. A scenario of the outcome for one such student is portrayed below.

**My other brother Daryl** is 18 years old, TMH (30-40 IQ).
He has been in school 12 years.
He has never been served in any setting other than elementary school.
He has had a number of years of "individual instruction".
He has learned to do a lot of things!

Daryl *can now* do lots of things he couldn't do before!
He can put 100 pegs in a board in less than 10 minutes while in his seat with 95 percent accuracy.
But, he can't put quarters in vending machines.
Upon command he can "touch" nose, shoulder, leg, foot, hair, and ear.
He's still working on wrist, ankle, and hips.
But, he can't blow his nose when needed.
He can now do a 12 piece Big Bird puzzle with 100 percent accuracy, color an Easter Bunny, and stay in the lines!
But, he prefers music, but was never taught how to use a radio or record player.
He can now fold primary paper in halves and even quarters.
But, he can't sort clothes; whites from colors for washing.
He can roll Play Dough and make wonderful clay snakes!
But, he can't roll bread dough and cut out biscuits.
He can string beads in alternating colors and match it to a pattern on a DLM card!
But, he can't lace his shoes.
He can sing his ABC's and tell me names of all the letters of the alphabet when presented on a card in upper case letters with 80 percent accuracy.
But, he can't tell the men's room from the ladies room when we go to McDonald's.
He can be told it's cloudy/rainy and take a black felt cloud and put it on the day of the week on an enlarged calendar (with assistance).
But, he still goes out in the rain without a raincoat or hat.
He can identify with 100 percent accuracy 100 different Peabody Picture Cards by pointing!
But, he can't order a hamburger by pointing to a picture or gesturing.

He can walk a balance beam frontwards, side-ways, and backwards!
But, he can't walk up the steps or bleachers unassisted in the gym to go to a basketball game.

He can count to 100 by rote memory!
But, he doesn't know how many dollars to pay the waitress for a $2.59 McDonald's coupon special.

He can put the cube in the box, under the box, beside the box, and behind the box.
But, he can't find the trash bin in McDonald's and empty his trash into it.

He can sit in a circle with appropriate behavior and sing songs and play "Duck, Duck, Goose."
But, nobody else in his neighborhood his age seems to want to do that.

I guess he's just not ready yet.

Lewis, P. (1987). A case for teaching functional skills. *TASH Newsletter, 13* (12), p. 6.

# PARENT INVENTORY OF CURRENT AND FUTURE ENVIRONMENTS

Student's Name: _____ Date: _____

Person(s) Interviewed: _____ Relationship to Student _____

Interviewer (if applicable): _____

I. Life Areas

A. Independent Living

1. Where do you want your son or daughter to live within the next five years?

2. Are there any residential options that would be unpleasant to your son or daughter? Yes ____ No _____ If so, what are they?

3. Are there any residential options or settings that your son or daughter would enjoy? Yes _____ No _____ If so, what are they?

4. Are there any specific considerations or concerns that you feel your son or daughter needs with regard to future residential options? (This also includes if you plan on your son or daughter remaining in your home.) Yes _____ No _____ If so, what are they?

5. Have you considered any residential options? Yes _____ No _____ If so, what are they?

6. Name the independent living activities in which your son or daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son or daughter's level of independence. You may want to use some of the following activities.

| | Inde-pendent | Assist-ance | Does Not Participate | Rank |
|---|---|---|---|---|
| a. _____ | | | | |
| b. _____ | | | | |
| c. _____ | | | | |
| d. _____ | | | | |
| e. _____ | | | | |
| f. _____ | | | | |
| g. _____ | | | | |
| h. _____ | | | | |

Other:

Independent Living Activities

1. Indicates toileting needs
2. Toileting
3. Eating or drinking
4. Grooms self (hair care, brushes teeth, applies deodorant, bathing)
5. Selects own clothing
6. Dresses self
7. Indicates if he or she wants to be different location
8. Transfers in and out of wheelchair
9. Folds clothes
10. Puts clothes away
11. Puts clothes in hamper
12. Makes own drink or sandwiches
13. Prepares lunch for work or school
14. Gets own snack
15. Sets and clears table
16. Puts groceries away
17. Selects items for meals
18. Dusts furniture
19. Cleans room
20. Mops or sweeps floor repositioned or placed in a
21. Makes bed
22. Empties trash
23. Waters plants
24. Mends clothes
25. Irons clothes
26. Washes or dries clothes

B. Work

1. What job would you like your son or daughter to have?

2. Where would you like him or her to work?

3. Are there any vocational training options that you would like him or her to attend? Yes _____ No _____ If so, what are they?

4. Are there any jobs (including vocational training programs) that your son or daughter would enjoy? Yes _____ No _____ If so, what are they?

5. Are there any jobs (including vocational training programs) that would be particularly unpleasant to your son or daughter? Yes _____ No _____ If so, what are they?

6. Are there any specific considerations or concerns that you feel your son or daughter needs with regard to jobs or vocational training options? Yes _____ No _____ If so, what are they?

7. Have you considered any jobs or vocational training options? Yes _____ No _____ If so, what are they?

8. Name the work activities in which your son or daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son or daughter's level of independence. You may want to use some of the following activities.

| | Inde-pendent | Assist-ance | Does Not Participate | Rank |
|---|---|---|---|---|
| a. _____ | _____ | _____ | _____ | _____ |
| b. _____ | _____ | _____ | _____ | _____ |
| c. _____ | _____ | _____ | _____ | _____ |
| d. _____ | _____ | _____ | _____ | _____ |
| e. _____ | _____ | _____ | _____ | _____ |
| f. _____ | _____ | _____ | _____ | _____ |
| g. _____ | _____ | _____ | _____ | _____ |
| h. _____ | _____ | _____ | _____ | _____ |

Other:

Work Activities

1. Sorts
2. Matches
3. Assembles
4. Packages
5. Folds
6. Observes break time
7. Arrives and leaves work on time
8. Obtains work materials
9. Puts work materials away
10. Leaves work area neat
11. Uses time clock
12. Attends to task with minimal distractions
13. Performs farm chores
14. Obtains work materials
15. Follows verbal instructions
16. Follows job picture sequence
17. Interacts with co-workers appropriately
18. Receives corrections from supervisor without disruption
19. Self-corrects errors

C. Community Life

1. In which community activities would you like your son or daughter to participate?

2. Are there any community activities that your son or daughter particularly enjoys? Yes _____ No _____ If so, what are they?

3. Are there any community activities that would be particularly unpleasant to your son or daughter? Yes _____ No _____ If so, what are they?

4. Are there any particular concerns or considerations that you feel your son or daughter needs with regard to community activities? Yes _____ No _____ If so, what are they?

5. Name community activities in which your family and your son or daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son/daughter's level of independence. You may want to use some of the following activities.

| Activity | Name of Facility | Inde-pendent | Assist-ance | Does Not Participate | Rank |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |
| e. | | | | | |
| f. | | | | | |
| g. | | | | | |
| h. | | | | | |

Other:

Community Life Activities

1. Selects clothing items at store
2. Makes purchases
3. Uses public phone
4. Makes selections at grocery store
5. Makes grocery list
6. Selects account for money to be deposited (checking/savings)
7. Writes checks
8. Uses money card
9. Places letters in mailbox
10. Mails packages
11. Attends church
12. Uses public transportation
13. Uses public restrooms
14. Cooperates with barber or hairdresser
15. Cooperates with doctor or dentist
16. Uses coin operated washers or dryers
17. Makes selection at library
18. Looks at pictures or books at library
19. Pays for public transportation
20. Makes selection from pop machines

D. Recreation/Leisure

1. How would you like your son or daughter to spend his or her free time? (This includes both indoor and outdoor activities.)

2. Are there any particular activities that your son or daughter enjoys? Yes _____ No _____
If so, what are they?

3. Are there any particular activities that are unpleasant to your son or daughter?
Yes _____ No _____ If so, what are they?

4. Are there any specific concerns or considerations that you feel your son or daughter needs with regard to recreation/leisure options? Yes _____ No _____ If so, what are they?

5. Name recreational/leisure activities in which your family and your son/daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son or daughter's level of independence. (This includes both indoor and outdoor activities.) You may want to use some of the following activities.

| Activity | Indoor/ Outdoor | Name of Facility | Inde- pendent | Assist- ance | Does Not Participate | Rank |
|---|---|---|---|---|---|---|
| a. | | | | | | |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |
| e. | | | | | | |
| f. | | | | | | |
| g. | | | | | | |
| h. | | | | | | |

Other:

Recreation/Leisure Activities

1. Swimming
2. Bowling
3. Movies, theater, concerts
4. Uses equipment at parks
5. Picnics
6. Walks
7. Track (running, jogging, or softball throw)
8. Rollerskates (one or two skates)
9. Dances
10. Parties
11. Car rides
12. Participates in family vacations
13. Camping
14. Fishing
15. Boating
16. Watches sporting events
17. Participates in sporting events
18. Rides horses
19. Woodworking
20. Painting or drawing
21. Selects music
22. Listens to music
23. Crafts
24. Collects items or objects
25. Computer games
26. TV
27. Video games at arcades
28. Selects items at restaurants
29. Plays miniature golf
30. Water slides
31. Zoo
32. Sings in choir
33. Visits are galleries or museums
34. Plays musical instrument
35. Plays table games
36. Photography
37. Attends exercise class (e.g., jazzercise or aerobics)
38. Visits friends and neighbors

E. Regular Education

1. In what regular education activities would you like your son or daughter to participate? (This includes extracurricular activities.)

2. Are there any particular regular education activities your son or daughter enjoys? Yes_____ No_____ If so, what are they?

3. Are there any particular regular education activities that are unpleasant to your son or daughter? Yes_____ No_____ If so, what are they?

4. Are there any specific concerns or considerations that you feel your son/daughter needs with regard to regular education activities? Yes_____ No_____ If so, what are they?

5. Name the regular education activities in which your son or daughter currently participates, mark (X) the level of assistance required for participation, and rank (1,2,3) the activities that you feel would increase your son's or daughter's level on independence. You may want to use some of the following activities.

| Activity | Grade Level | Inde-pendent | Assist-ance | Does Not Participate | Rank |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |
| e. | | | | | |
| f. | | | | | |
| g. | | | | | |
| h. | | | | | |

Other:

Regular Education

1. Reading
2. Math
3. Science
4. Social Studies
5. Handwriting
6. Art
7. Music
8. Library
9. PE
10. Homeroom
11. Home economics
12. Foreign language
13. Theater
14. Woodshop
15. Automotive technology
16. Orchestra
17. Choir
18. Typing
19. Shorthand
20. Accounting
21. Journalism
22. Metal shop
23. Agricultural science
24. Speech (Forensics)
25. Debate
26. Psychology
27. Sociology
28. Sports (please list)
29. Clubs (please list)
30. Cheerleading
31. Drill Team
32. Flag Team
33. Student Government
34. Scouts (please list)
35. Yearbook
36. Newspaper
37. Mascot

Adapted from: Turnbull, A. P., Brotherson, M. J., Bronicki, G. J., Houghton, J., Roeder-Gordon, C., & Summers, J. A. (1985). *How to plan for my child's adult future: A three-part process to future planning.* Lawrence: University of Kansas Affiliated Facility, Bureau of Child Research.

# Student Preference/Choice Survey

Student's Name: _____ Date: _____

Surveyor's Name: _____ Relationship to Student: _____

Person(s) Interviewed (if applicable): _____

1. How does the student indicate likes and dislikes? (You may check more than one behavior if it applies.)

| | | Likes | Dislikes | | | Likes | Dislikes |
|---|---|---|---|---|---|---|---|
| a. | Laughs | ____ | ____ | i. | Points/reaches | ____ | ____ |
| b. | Cries | ____ | ____ | j. | Initiates action | ____ | ____ |
| c. | Facial Expression | ____ | ____ | k. | Vocalizes | ____ | ____ |
| d. | Screams | ____ | ____ | l. | Gestures | ____ | ____ |
| e. | Tantrums | ____ | ____ | m. | Signs | ____ | ____ |
| f. | Looks at people | ____ | ____ | n. | Technology | ____ | ____ |
| g. | Looks at objects | ____ | ____ | | Switch(es): | | |
| h. | Moves body | ____ | ____ | | (list type) | _____ | |

Other:

2. How does the student generally indicate preferences or choices when given the choice between two or more activities or foods?

3. What types of choices are comfortable for the student to make?

4. What types of choices are uncomfortable for the student to make?

5. What are the student's three most favored activities? (These can be either instructional or recreational activities.)

6. What are the student's three least favored activities? (These can be either instructional or recreational activities.)

7. Does the student have preferences (regardless of need) for:

_____ learning specialist
_____ speech therapy
_____ transportation
_____ positioning
_____ physical therapy
_____ psychological/counseling services
_____ orientation & mobility
_____ vision specialist
_____ occupational therapy
_____ dietary services
_____ medical services
_____ audiology
_____ other: _____
(specify)

8. What time of day does the student prefer to be active?

9. What time of day does the student prefer to relax?

10. Who does the student prefer to participate with during educational activities? (Staff?)

11. Who does the student prefer to participate with during educational activities? (Other students, friends?)

12. Generally, the student prefers: (check the appropriate responses)

a. Temperature: _____hot; _____ cold; _____ warm.

b. Taste: _____ sweet; _____ sour; _____ spicy; _____ bland.

c. Lights: _____ bright; _____ dark; _____ dull; _____ natural light; _____ artificial light.

d. Positioning: _____ sidelying; _____ prone; _____ supine; _____ supported sitting; _____ supported kneeling; _____ sitting; _____ standing.

Favorite positions to participate during activities (please list)

Favorite positions for sleeping (please list)

Adaptive devices used to obtain favorite position (please list)

e. Mobility: _____ crawling; _____ walking; _____ walker; _____ crutches; _____ wheelchair; _____ travel chair.

f. Sounds: _____ loud; _____ soft; _____ moderate; _____ steady state noise (e.g., fans or vacuum cleaner); _____environmental; _____ artificial.

g. Textures (material): _____ rough; _____ smooth; _____ hard; _____ soft; _____ squishy; _____ slimy; _____fuzzy.

h. Textures (food): _____ pureed; _____ semi-soft; _____ bite-sized.

Favorite foods (please list)

i. Drinks: _____ thick in consistency; _____ thin in consistency; _____ carbonated; _____ noncarbonated.

Favorite drinks (please list)

j. Environment: _____ outdoors; _____ indoors; _____ wet; _____ dry; _____ airy.

k. Media: _____ colorful; _____ black/white; _____ large print; _____ neutral: _____ high contrast; _____ low contrast.

Favorite colors (please list)

l. Communication: _____ verbalizes (expressive speech); _____ vocalizes; _____ signs; _____ gestures; _____ communication board; _____ computer; _____ head stick; _____ technological switch; _____ other (please specify).

m. Music: _____ hard rock: _____ classical; _____ jazz; _____ pop; _____ country; _____ folk rock; _____ folk music; _____ acid rock; _____ rhythm & blues; _____ rock & roll; _____ new wave; _____ blues; _____ blue grass; _____ industrial.

Favorite songs (please list)

Favorite instruments (please list)

n. TV: _____ family shows; _____ police and detective shows; _____ medical shows; _____ news; _____ comedies; _____ talk shows; _____ computer games; _____ game shows; _____ movies; _____ sitcoms; _____ variety shows; _____ sports events.

Favorite TV shows (please list)

Favorite computer games (please list)

o. Involvement
_____ activities of fast pace;
_____ activities of moderate pace;
_____ activities of slow pace.

p. Engagement:
_____ highly repetitive activities;
_____ moderately repetitive activities
_____ nonrepetitive activities.

q. Activities in environmental activities: _____ lots of action;
_____ moderate degree of action;
_____ action is limited.

r. Competition: _____ in highly competitive situations;
_____ moderately competitive situations;
_____ noncompetitive situations.

s. Structure: _____ in highly structured situations;
_____ moderately structured situations;
_____ loosely structured situations.

t. Familiarity: _____ in unfamiliar or new surroundings;
_____ in familiar surroundings;
_____ familiar or unfamiliar surroundings do not matter.

u. Visual stimulation: _____ in highly visually stimulating environments;
_____ in moderately visually stimulating environments;
_____ in low visually stimulating environments.

v. Auditory stimulation: _____ in noisy environments;
_____ in moderately noisy environments;
_____ in quiet environments.

w. Participation: _____ alone; _____ with 1 other person; _____ with small group;
_____ with large group.

x. Activity Level: _____ very active; _____ moderately active; _____ relaxed.

y. Dependency: _____ independent; _____ supervised; _____ dependent.

z. Peers - Age Groups: _____ with age peers; _____ with persons older;
_____ with persons younger.

aa. Peers - Sex: _____ members of same sex; _____ members of opposite sex;
_____ members of both sexes.

bb. Attention: _____ center of attention; _____ one of the crowd; _____ seen but not heard; ____
isolated.

cc. Surfaces: _____ high glare; ____ non-glare; _____ glare does not matter.

dd. Materials: _____ high contrast; _____ low contrast; _____ contrast does not matter.

Adapted from: Turnbull, A. P., Brotherson, M. J., Bronicki, G. J., Houghton, J., Roeder-Gordon, C., & Summers, J. A. (1985). *How to plan for my child's adult future: A three-part process to future planning.* Lawrence: University of Kansas Affiliated Facility, Bureau of Child Research.

**Discrepancy Analysis**

Life Area: Recreation/leisure

Subenvironment: Cafeteria line

Environment: Restaurant

Activity: Food Selection

| Nondisabled Student Inventory | Student Inventory | Discrepancy Analysis | Teaching Strategies/ Adaptations |
|---|---|---|---|
| Locate tray and utensils | + | | |
| Push tray | - | • Attempted to push tray with fisted hand, lost control of tray due to poor grasp. | • PT & OT to assist in developing relaxation exercises to facilitate opening fist prior to activity. Teach grasp of tray. |
| Scan choices | + | | |
| Make selection | + | | |
| Request entre | - | • Requested "food" in sign language. Server did not understand. | • Develop communication wallet using picture symbols with input from SLP & Vision Consultant. |
| Reach for food | - | • Limited range of motion in upper extremities. Cannot reach selection. | • Develop communication system to request assistance from server. |
| Put food on tray | - | • Poor grasp of plate. Movement of tray after assisted grasp was good. | • Teach grasp of plate with assistance from PT & OT. |
| Pay for food | - | • Difficulty obtaining wallet from knapsack. Difficulty grasping wallet. Did not wait to receive wallet back from server. No money concepts. | •Use adapted wallet with $5 and message for server. Get wallet out before entering line. Teach grasp of wallet and money exchange. |

# RELATED SERVICES AND THE TRANSDISCIPLINARY APPROACH

**Parent and Service Provider Training Module**

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## I. General Information - Overview

### A. Parent and Service Provider Training Module

Related Services and the Transdisciplinary Approach

### B. Purpose of the Module

The purpose of this module is to assist parents and service providers in become more knowledgeable about the team structures that include delivery of therapeutic services for children and youth with dual sensory and multiple impairments. The content of the module will focus on issues related to transdisciplinary teamwork. Lectures and activities will be related to the following topics: a) functions and roles of team members; b) models of service delivery; and c) benefits of the transdisciplinary approach.

### C. Intended Audience

This information is intended for parents, family members, and service providers of children and youth with dual sensory and multiple disabilities. Over the past several years, leaders in the field of special education have recognized the importance of focusing on the family unit, rather than on parents exclusively. Therefore, this module is appropriately conducted with parents, guardians, siblings, extended family members, friends, advocates, or service providers who are currently involved in the educational planning for individuals with disabilities. In many cases, it would be appropriate to include the student in this training experience. A decision to include the student should be made on an individual basis.

### D. Level of Training

Awareness

### E. Entry Level Skills

Participation in this awareness training session does not require any prerequisite or entry level skills.

**F. General Outcome Competencies**

Participants will receive information regarding:

1. the generic functions served by all team members when working with students who have dual sensory and multiple impairments;

2. roles and responsibilities of various team members;

3. implications of the "Related Service" section of P.L. 94-142;

4. predominant types of service delivery models used in schools; and

5. benefits of the transdisciplinary approach to education and habilitation.

**G. Module Delivery Organization**

1. Number of Lectures: 3

2. Amount of Time: Three ninety minute lectures for a total of four and one-half hours. Additionally, several group activities and opportunities for discussion are also included. The combination of lecture, group activities, and discussion results in a total training session length of approximately one and one-half days.

3. Materials and Equipment: Materials and equipment will vary depending upon the activities and presentation style of the trainer. It is recommended that the trainer use a variety of presentation materials and equipment (e.g., overhead transparencies, slides, and actual equipment used by members of each of the disciplines).

**H. Special Instructions**

1. The trainer should be sensitive when addressing disabling conditions of an individual by

acknowledging the individual first and the disabling condition second. For example, during presentations, the trainer should refer to "individuals with deaf-blindness (or dual sensory impairments) and multiple impairments" rather than a "deaf-blind individual." The two terms, "deaf-blindness" and "dual sensory impairments," are used interchangeably throughout the module.

2. The trainer should be aware of the use of professional jargon during presentations. This does not imply that essential vocabulary from the various disciplines should not be used. Basic terminology should be defined at the beginning of each training session as family members and service providers will need to learn some of this terminology to communicate effectively with each other. Trainers should encourage the participants to ask questions regarding unfamiliar terms and limit the use of sophisticated terminology. When possible, use familiar terms, such as "bend" instead of "flex" and "backlying" instead of "supine".

## II. Training Instructions

### A. Trainer Preparation

The trainer should be familiar with the basic principles presented in each training session. This can be accomplished by reading the literature suggested and communicating with various professionals. It is not important for the trainer to have expertise in all disciplines; however, it is necessary for the trainer to have experience as a team member.

### B. How to Deliver the Module

It is recommended that the presentations include lectures, training activities, and discussion. Suggested training activities are listed under each content section. The trainer is encouraged to develop and use original resources to supplement the presentations.

### C. Training Tips

Embedded within the text of the module are suggestions for ways in which the trainer can enhance participant attention and learning. These suggestions are typed in bold-faced italics and enclosed in a special bracket. Here is an example.

> ***Pause here and ask participants to share any questions they may have.***

## III. Content - Part I: Functions and Roles of Team Members

### A. Module Delivery Organization

1. Lecture Number: 1

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

   Participants will receive information regarding:

   a. the importance of families as consumers of services

   b. generic functions served by all team members

   c. roles and responsibilities of team members with whom they are likely to interact

   d. the overlap among the various disciplines

### B. Content Overview Outline

1. Families as Consumers of Professional Services

2. Functions of Educators and Related Service Professionals

3. Roles and Responsibilities of Team Members

   a. Occupational Therapist

   b. Orientation and Mobility Instructor

   c. Parent

   d. Physical Therapist

   e. Speech/Language Therapist

   f. Teacher

## C. Suggested Readings for the Trainer

Sections of the content in the readings listed below served as the basis for development of this module. The trainer will need to obtain these resources and master the content prior to delivering the module.


Campbell, P. (1987). The integrated programming team: An approach for coordinating professionals of various disciplines in programs for students with severe and multiple disabilities. *The Journal of The Association for Persons with Severe Handicaps, 12*, 107-116.

Giangreco, M. F. (1990). Making related service decisions for students with severe disabilities: Roles, criteria, and authority. *Journal of the Association for Persons with Severe Handicaps, 15* (1), 22-31.

Goetz, L., Guess, D., & Stremel-Campbell, K. (1987). *Innovative program design for individuals with dual sensory impairments.* Baltimore: Paul H. Brookes.

Orelove, F. P., & Sobsey, D. (In press). Designing transdisciplinary services. In F. P. Orelove & D. Sobsey (Eds.), *Educating children with multiple disabilities: A transdisciplinary approach* (Second edition, pp. 1-24). Baltimore: Paul H. Brookes.


## D. Introduction to the Module, Part I

***Introduce participants to this portion of the module by displaying Overhead 1. Refer to it as you review the following topics with participants. Next, you may want to say: "For the next hour and a half we will cover the following topics:***

1. ***Families as consumers of professional services***
2. ***Functions of educators and related service professionals***
3. ***Roles and responsibilities of team members"***

## E. Specific Content

1. Families as Consumers of Professional Services

***Begin this session by asking participants the following questions:***

1. ***"Why is it important for families to be involved with professionals who provide services to their children?"***
2. ***"What can the family as a consumer of professional services contribute?"***

***As participants respond, write their answers on a blank transparency, flip chart, or chalkboard. Add your own content if it is not covered by participants.***

The following information listed below is a list of reasons why the role of families as consumers should be emphasized (Giangreco, Cloninger, & Iverson, 1990):

a. Families know many things about their children better than anyone else.

b. Families have the greatest vested interest in seeing their children learn.

c. Families are likely to include the only adults involved with the educational or therapeutic programs of their children throughout their entire school career.

d. Families have access to information about the capabilities of their children in home and community settings to which others have no access.

e. Families have the ability to influence the quality of educational services provided in their community.

f. Families must live with the outcomes of decisions made by educational or therapeutic teams 24 hours a day, 365 days a year.

2. Functions of Educators and Related Service Professionals

***Display Overhead 2 and explain each item using the following narrative and examples.***

The following functions may be carried out by any combination of team members. Each function is potentially important, though its degree of importance may vary depending on the individual needs of the child or youth. These are:

a. development of adaptations to encourage functional participation (e.g., selection or design of a microswitch to activate a blender);

b. facilitation of academic and functional skills relevant to the current and future needs of the student (e.g., development of a mobility program);

c. reciprocal consultation with colleagues;

d. removal or modification of barriers to participation (e.g., negotiating with Medicaid to enable purchase of a one-arm drive wheelchair);

e. prevention of regression (in sensory, physical, cognitive, or social/behavioral areas) or pain;

f. support and resource to families;

g. remediation or restoration of identified deficits;

h. promotion of sequenced developmental skills within motor, cognitive, and social domains through functional activities (Uzgiris & Hunt, 1978; Wood, Combs, Gunn, & Weller, 1986);

i. assessment and subsequent educational or therapeutic program development, implementation, and evaluation; and

j. consensus decision-making.

3. Roles and Responsibilities among Team Members

Roles of team members have been changing significantly over the past few years. In the past, specialists such as occupational, physical, and speech therapists worked in physically isolated areas (e.g., the "therapy" room) and pursued goals which were narrowly defined by their particular discipline. Today, in state-of-the-art programs, these and other specialists are synthesizing their competencies within a wider variety of academic and functional activities in ever increasing types of environments [e.g., general education classrooms, other school settings, stores, restaurants, public buses, streets and roads, community work sites, recreational locations, or homes (Rainforth & York, 1987; York, Giangreco, Macdonald, & Vandercook, in press)].

***Display Overhead 3 and say:***
***"The following professions are those most often represented on teams in educational settings."***

The following descriptions are general and do not reflect all of the activities conducted by various professionals. These descriptions are designed to give the audience a general feeling for types of roles assumed by the different professionals rather than to provide a comprehensive overview. The members of an educational team are determined by the particular needs of the student. Therefore, other professionals also may be involved (e.g., psychologist, audiologist, social worker, nurse, or vocational specialist) for some children.

***Refer to Overhead 3. The trainer should include descriptions of professionals that match needs of the participants. For example, students with medical complications may also have nurses and nutritionists as contributing team members. Ask participants to identify those professionals who serve their children or students.***

a. Occupational Therapist (OT). Occupational therapists provide evaluation of and intervention for problems that interfere with functional performance in individuals impaired by physical injury, emotional disorder, congenital, or developmental disability. They use a program of purposeful activities to develop, improve, restore, or maintain adaptive skills. The activities are designed to achieve maximal physical, cognitive, or emotional functioning of individuals in school or other daily life experiences (American Occupational Therapy Association, 1987). Only occupational therapists who meet the certification standards of the American Occupational Therapy Association (AOTA) can provide occupational therapy services.

In school settings, occupational therapists are frequently engaged in activities, such as developing proper seating, developing positioning and handling strategies, designing adaptive equipment, designing handsplints and other orthotic devices, teaching self care and daily living skills, developing feeding programs, developing handwriting activities, and

working on a variety of other functional, fine motor hand use activities. Occupational therapists also may be found supporting recreational and vocational programs, as well as working within social/emotional domains. Traditionally, OT's have relied on the use of purposeful activities to attain therapeutic outcomes.

**NOTE: SOME STATES REQUIRE A PHYSICIAN'S PRESCRIPTION FOR OT SERVICES.**

b. Orientation and Mobility Instructor (O & M). Orientation and mobility instructors provide evaluation and intervention related to the abilities of students with visual impairments to move through their environment. In addition, O & M instructors teach protective techniques, search techniques, safely orienting to the physical environment, and concept development. These skills assist students in developing independent travel within home, school, or neighborhood environments. O & M instructors also make recommendations regarding travel aids and equipment adaptations, such as marking a stove, or folding paper money for tactile identification. Much of the O & M instructor's work involves analysis of frequented environments, as well as instruction in those actual environments.

c. Parent. Parents and family members are essential team members. Family members provide valuable input and insights into educational planning by:

i. assisting in the determination of educational and functional priorities;

ii. reporting skill levels in home and other nonschool environments;

iii. identifying student preferences;

iv. highlighting student strengths;

v. sharing the family's aspirations and dreams for the student in the future;

vi. relaying historical information that may affect planning; and

vii. offering additional input that would typically be unavailable to school personnel.

Family members also may participate in the actual implementation and evaluation of

certain instructional programs. Parent participation in program implementation should be individually determined based on the needs, values, and resources of the family. Parents have the unique opportunity and ability to place incoming recommendations into a meaningful historical and social context.

d. Physical Therapist (PT). "Physical therapy is a health profession concerned with providing services that prevent or minimize disability, relieve pain, develop and improve sensory and motor function, control postural deviations, and establish and maintain maximum performance within the individual's capabilities. Physical therapy services within the educational environment are directed toward the development and maintenance of the disabled child's physical potential for independence in all education related activities. The physical therapist is a licensed health professional who has completed a program in physical therapy that has been accredited by a recognized accrediting agency" (American Physical Therapy Association, 1985). Physical therapists may use, "physical, chemical, or mechanical means including, but not limited to heat, cold, light, air, water, sound, electricity, massage, mobilization, and therapeutic exercise with or without assistive devices . . ." (American Physical Therapy Association, 1987).

In school settings, physical therapists are frequently engaged in activities, such as developing proper seating, positioning and handling, gait training, mobility instruction (including wheelchair use), selection and use of adaptive equipment, movement facilitation, maintaining joint flexibility and range of motion, gross motor programming, skin care to prevent skin breakdown, cardiovascular and cardiomuscular fitness, and a variety of other activities designed to assist students in benefiting from educational programs.

**NOTE: SOME STATES REQUIRE A PHYSICIAN'S PRESCRIPTION FOR PT SERVICES.**

***Provide some examples or demonstrate some of these activities. Have some equipment available for a hands-on experience.***

e. Speech/Language Therapist (S/LT). Speech/language therapists address areas such as disorders in fluency, voice, articulation, and expressive and receptive language. They may utilize a wide variety of nonvocal communication modes and symbol systems. For example, sign communication systems (e.g., manually coded English) and sign language (e.g., ASL), as well as other types of nonsymbolic and symbolic communication systems may be used. The speech/language therapist determines the child or youth's present level of functioning in terms of communication skills, and develops and implements communication programs that can be implemented by the entire team within a variety of relevant contexts. This communication program may include speech or nonspeech modes. Speech/language therapists also may develop and implement feeding programs and other activities related to oral motor functions, and social skills development.

***Provide an example of how a speech/language therapist would perform some of these tasks in collaboration with other professionals.***

f. Teacher (this may include regular educators, special educators, resource or consulting teachers, and teachers who specialize in vision or hearing needs). The role of the teacher involves developing and implementing educational programs in conjunction with other team members. As noted by Bricker (1976), the teacher often assumes the role of "educational synthesizer." Since the teacher is likely to be the staff member who has primary responsibility for the child or youth on a daily basis, he would be the logical person to oversee implementation and evaluation of the student's overall program. This role of synthesizer does not imply disproportionate decision-making authority or responsibility. Accountability should be clarified and agreed to by team members. In addition to the general functions served by all team members (e.g., facilitation of academic

and functional skills, adaptations, or reciprocal consultation), the teacher is also responsible for organizing the classroom environment with input from the team, assisting in the determination of an appropriate mixture of instructional experiences (e.g., individual, small group, and large group), providing systematic instruction, developing opportunities for interactions with nondisabled peers, as well as training and supervising paraprofessional staff. This role requires frequent, ongoing communication with team members, including students' families. Teachers may work within the range of academic curricula, as well as the life areas of independent living, community life, work, recreation/leisure, and regular education.

***Distribute copies of Handout 1 to participants. Spend a few minutes reviewing the content. Ask participants if they have questions regarding the professional and support organizations listed.***

g. Overlap of roles among various team members - refer to Table 1 - Common Areas of Role Overlap (Overhead 4).

***Display Overhead 4 and say: "The overlaps shown are meant to familiarize you with common areas of overlap. This is not intended to provide a comprehensive list of overlaps." Refer to Overhead 4 as you point out some of the overlaps.***

**F. Training Activities**

1. Have professionals (in the audience) from the various disciplines address participants on the principle aspects of their jobs.

2. Show slides or videotapes from local school programs which depict examples of students working with team members in various settings.

3. Have participants share examples of the kinds of activities team members engage in with their

children or students.

4. Bring a wide variety of adaptive equipment for the various disciplines [e.g., goniometer (PT); signature card, Braille writer, or magnifying glass (teacher of students with visual impairments); built-up spoon handle, plate guard, cut-out cup, or adapted switch (OT); or auditory trainer or communication board (S/LT).] Have participants sort items by the discipline with which they are associated. Discuss names and functions of equipment.

## IV. Content - Part II: Models of Service Delivery

### A. Module Delivery Organization

1. Lecture Number: 2

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will receive information regarding:

a. the federal definition of "related services" and the characteristics of those services;

b. characteristics of a team;

c. some of the common value systems used by professionals and parents and how these can affect teams; and

d. the evolution of team interactions [e.g., multidisciplinary, interdisciplinary, and transdisciplinary (or integrated therapy)].

### B. Content Overview Outline

1. Definition and Interpretation of "Related Services" from P.L. 94-142

2. Forms of Team Interaction

   a. Multidisciplinary

   b. Interdisciplinary

   c. Transdisciplinary (or Integrated Therapy)

3. Mislabeling of Teams

4. Attitudes of Team Members and Their Effect on Team Interactions and Services

a. More-is-Better

b. Return-on-Investment

c. Only-as-Special-as-Necessary

5. Approaches to Measurement

**C. Suggested Readings for the Trainer**


Giangreco, M. (1986). Delivery of therapeutic services in special education programs for learners with severe handicaps. *Physical and Occupational Therapy in Pediatrics,6* (2) 5-15.

Giangreco, M., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in educational settings: Pursuing the least restrictive option. *Pediatric Physical Therapy, 1* (2), 55-63.

Giangreco, M., Edelman, S., & Dennis, R. (1991). Common professional practices that interfere with the integrated delivery of related services. *Remedial and Special Education*, 12(2), 14-24.

Hutchinson, D.J. (1978). The transdisciplinary approach. In J. Curry & K. Peppe (Eds.), *Mental retardation: Nursing approaches to care* (pp. 65-74). St. Louis, MO: C.V. Mosby Co.

Lehr, D., & Haubrich, P. (1986). Legal precedents for students with severe handicaps. *Exceptional Children, 52*, 358-365.

Lyon, S., & Lyon, G. (1980). Team functioning and staff development: A role release approach to providing integrated educational services for severely handicapped students. *Journal of the Association for the Severely Handicapped, 5*, 251-263.

Osborn, A. (1984). How the courts have interpreted the related services mandate. *Exceptional Children, 51*, 249-252.

Rainforth, B., & York, J. (1987). Integrating related services in community instruction. *Journal of the Association for Persons with Severe Handicaps, 12*, 190-198.

Sternat, J., Messina, R., Nietupski, J., Lyon, S., & Brown, L. (1977). Occupational and physical therapy services for severely handicapped students: Toward a naturalized public school service delivery model. In E. Sontag, J. Smith, & N. Certo (Eds.), *Educational programming for the*

*severely and profoundly handicapped* (pp. 263-278). Reston, VA: Council for Exceptional Children, Division of Mental Retardation.

Thousand, J., Fox, T., Reid, R., Godek, J., Williams, W., & Fox, W. (1986). Developing the collaborative teaming process. *The homecoming model: Educating students who present intensive educational challenges within regular education environments* (pp. 33-36). Burlington: Center for Developmental Disabilities, University of Vermont.

Wolfensberger, W. (1977). *The principle of normalization in human services.* Ontario, Canada: G. Allan Roeher Institute.

**D. Introduction to the Module, Part II**

***Introduce participants to this section of the module by displaying Overhead 5. Refer to it as you review topics with participants. Next, you may want to say: "For the next hour and a half we will cover the following:***

1. ***The definition and interpretation of "related services" from PL 94-142***
2. ***Forms of team interactions***
3. ***The mislabeling of teams***
4. ***Attitudes of team members and their effect on the team process***
5. ***Approaches to measurement"***

**E. Specific Content**

1. Definition and Interpretation of "Related Services" from PL 94-142

"The term 'related services' means transportation and such developmental, corrective and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a handicapped child to benefit from special education, and includes the early identification and assessment of handicapping conditions in children." PL 94-142 (1975).

The Code of Federal Regulations 34 & 300.13 & 300.14 provide more in-depth definitions than

PL 94-142. [For a review of how related services have been interpreted by the courts see Osborne (1984).] The following is a summary of main points concerning related services.

a. Related services are provided to students with disabling conditions if the recommended services are required for students to benefit from special education. The courts have extended the interpretation of related services to include access to education, and in some cases, avoidance of unduly restrictive educational placements.

| |
|---|
| ***Provide an example here.*** |

b. Variations exist from state to state regarding the provision of related services.

c. Schools generally are not required to provide services that are not judged to be essential for students to benefit from special education. The test for determination of related service delivery has been that the absence of the related service makes it unduly difficult or impossible for students to benefit from special education or participation in school activities.

| |
|---|
| ***Provide an example here.*** |

d. Schools generally are not required to provide services that can be provided appropriately during nonschool hours.

| |
|---|
| ***Provide an example here.*** |

e. Services (e.g., clean intermittent catheterization or tube feeding) considered to be school health services provided by a school nurse or other qualified person can be considered as related services.

f. Schools are not required to provide services that only can be administered by a licensed physician, except for diagnostic or evaluation purposes.

2. Forms of Team Interactions

***Display Overhead 6. Next, you man want to say, "team interactions may be different, depending on goals of the team and site of service delivery We will review three forms of group interactions that might be used by a team."***

***Display Overhead 7 and say, "the steps listed on this overhead transparency highlight the way a multidisciplinary team functions."***

a. Multidisciplinary. Historically, the early forms of professional interaction were considered multidisciplinary, merely indicating that many disciplines were involved. This approach was an improvement over previous forms of service delivery because it brought to bear the varied skills of professionals from several disciplines. Unfortunately, the multidisciplinary approach of having professionals from many disciplines work with the same student in relative isolation from each other had serious limitations. The multidisciplinary approach did not meet the federal intent of supporting a student's ability to benefit from an educational program nor did it embody a mechanism for interactions among professionals. The multidisciplinary approach promoted highly individualistic professional behavior and seemed to perpetuate a professional-client relationship which tended to view the student as an affected part, condition, disease, or syndrome rather than a whole person.

***Display Overhead 8 and say,***
***"this overhead transparency highlights the functioning of an interdisciplinary team."***

b. Interdisciplinary. In recognition of the drawbacks to multidisciplinary models, some professionals adopted interdisciplinary approaches. The interdisciplinary model, as the prefix of the name suggests, represented reciprocal interactions among or between

professionals from a variety of disciplines. This occurred while attributes of the multidisciplinary approach were retained. Professionals from various disciplines created mechanisms for communicating with each other about their activities including a system of case management. Both the multidisciplinary and interdisciplinary models typically represent "discipline-referenced" approaches in which decisions regarding assessment, planning, intervention, evaluation, and team interactions are driven by an individual disciplinary orientation (e.g., education, OT, PT, and S/LT), rather than by a shared centralized focus, such as the needs of the student within the context of her environment.

***Display Overhead 9 and say, "this overhead transparency highlights the functioning of a transdisciplinary team (or integrated therapy)."***

c. Transdisciplinary and Integrated Therapy. The need for increased coordination among professionals evolved a step further with the development of the transdisciplinary model. Many professionals found it difficult to integrate the knowledge and skills from various disciplines, especially when they lacked a common goal. Additionally, it was difficult for some families to communicate with a range of different professionals. Therefore, proponents of the transdisciplinary approach added two primary characteristics to team service delivery. The first was collaboration based upon shared goals which grew out of a common framework, in essence the professionals began to view the child or youth as a complete person rather than a series of affected "parts" (Hutchinson, 1978). Secondly, program implementation included "role release," during which specialists provided training to a small number of persons outside of their respective disciplines to carry out selected services.

Role release permitted competent professionals to train and monitor specialized program implementation by others, thus allowing services to be provided in an indirect manner. This allowed knowledge and skills from a broad range of disciplines to be delivered while minimizing the number of persons interacting with a particular child or youth. Further, the

transdisciplinary team model permits infusion of therapeutic strategies into the context of functional activities. The transdisciplinary approach represented significant changes in how professionals interacted with each other. In this approach, discipline-referenced behavior was highly undesirable. Professionals had to be willing to place their disciplinary orientations in a secondary position to the agreed upon team goals in which the child or youth was viewed in the context of his or her environment. Transdisciplinary teamwork could not function properly with discipline-referenced professionals behaving in highly individualistic or competitive ways. Further, teamwork hinged upon the maturity of the members to demonstrate characteristics necessary for participation in a team: entering the relationship freely and equally, foresight, patience, politeness, speaking, arguing, and listening. . The interdependencies of the transdisciplinary model emphasized the importance of collaboration.

The transdisciplinary model also promoted significantly different professional-client relationships (assuming that the clients were both the student and his or her parents). In the older multidisciplinary and interdisciplinary models, the professional delivered treatment to the student directly. Parents were relegated to passive observer roles and were rarely consulted for their input. This was based upon the notion that the professional knew what should be done (i.e., standard practice) and was being paid to deliver direct services. In the transdisciplinary model, professionals increasingly realized that while disciplinary knowledge and skills were important, selected examples of both knowledge and skill could be released to others. This also was necessary in a pragmatic sense because many of the procedures to be carried out with the student needed to be done more frequently than the specialists could manage. Limiting knowledge and skills to the specialist was inherently a restrictive condition. In addition to releasing aspects of their roles to others, specialists increasingly began to view the consumer as integral to the team process. This represented a major departure from earlier models where consumers were the clientele to be served, but not included as partners. By including families as team members,

professionals acknowledged the vested interest, special knowledge, and potential input available through families.

***Display Overhead 10 as you review the following topics with participants.***

The characteristics of the transdisciplinary approach had logical application to educational environments. P.L. 94-142 stated that related services, such as OT, PT, and S/LT were to be provided, "...as required in order to assist a handicapped child to benefit from special education." Sternat et al., (1977) described a variation of the transdisciplinary approach which they referred to as, "integrated therapy." Integrated therapy extended the foundations of role release and shared focus inherent in the transdisciplinary approach by incorporating disciplinary expertise to the planning process in how to achieve shared goals. For example, in the early forms of transdisciplinary planning, a speech/language therapist may have had the responsibility for planning an augmentative communication program for a student who was nonverbal. After designing the plan the specialist releases primary implementation to those who interact with the student most frequently (e.g., teacher, aides, and family members) and provides training as necessary. In an integrated therapy approach, the team would agree that communication was a priority for the student, but within the planning process, a question would be posed to all relevant disciplines (not just the speech/language therapist). "What specialized knowledge can be shared with each other to enhance the student's acquisition of communication objectives?" That is, team members learned to share knowledge and skills from their respective disciplines to enhance acquisition of shared goals. For example, the PT may suggest a position to encourage head control that may permit the student to orient toward the augmentative communication device, and information from the itinerant vision teacher may guide placement of the device within the student's visual field.

A second characteristic of the integrated therapy model is implementation of specific therapeutic techniques in a synthesized manner within functional activities in instructional

or natural contexts (Giangreco, York, & Rainforth, 1987). For example, in a study conducted by Giangreco (1986), range-of-motion exercises and manual vibration techniques which are traditionally implemented in an isolated therapy session were incorporated into an instructional lesson to facilitate a student's use of an adapted microswitch to activate a tape player. The data indicated that by incorporating the therapeutic techniques in a synthesized, rather than isolated fashion, therapeutic techniques facilitated improved performance on the switch-activation task.

**NOTE: CERTAIN STUDENTS MAY REQUIRE SPECIFIC THERAPEUTIC OR OTHER SPECIALIZED SERVICES WHICH ARE NOT RELATED TO SUPPORTING THEIR EDUCATIONAL PROGRAM. IT IS SUGGESTED THAT THOSE STUDENTS RECEIVE NEEDED SERVICES THROUGH NONSCHOOL AGENCIES DURING NONSCHOOL HOURS.**

3. Mislabeling of Teams

The term "team" is popular. Almost every educational or habilitative program will claim to use a "team" approach. While most of these programs are well-intentioned and possess some aspects of a team, few meet all of the criteria for a team as listed in the previous section. It is important that families and service providers be aware of the characteristics of a team and potential mislabeling of certain school activities as teamwork. The absence of some or all team characteristics can be an indicator of program quality. Without "real" teamwork, programs may be disjointed and less effective.

4. Attitudes of Team Members and their Effect on the Team Process

The way team members interact with each other and the ideas they use to make decisions about persons with disabilities are influenced by a number of factors. Personal and professional values or attitudes can have a significant impact. Listed on the next overhead transparency are some commonly held attitudes and their potential effect on service delivery.

***Display Overhead 11 as you review the following information with participants.***

These attitudes are based on extensive observations of actual teams as well as 46 semi-structured interviews conducted with special educators, communication specialists, occupational therapists, physical therapists and parents who are involved with students who have severe disabling conditions. Many professionals combine various aspects of the following value systems. Many individuals function in more than one value system exclusively. Undoubtedly other value systems or variations exist; these were the ones most prevalent during interviews and observations that were conducted.

a. The "more-is-better" approach. Due to professional training, or a genuine belief that services offered by one's discipline are highly valuable and necessary, there are a group of professionals and parents who pursue a "more-is-better" approach. These individuals are likely to perceive that the vast majority of students who are identified with dual sensory and multiple impairments need extensive specialized services. These individuals tend to operate based on the assumption that if two sessions of "therapy" per week are good, three would necessarily be better, and five would be better yet. Such individuals are more likely to view the function of the specialized services in isolation from the total school or life experiences of students. Services based on this approach may actually have a negative impact on students, by separating them unnecessarily from typical school routines, activities and interactions.

"More-is-better" proponents are likely to support the provision of direct services based upon the belief that the knowledge and expertise of specialists is so advanced that the specialist's role cannot be released to others. This approach can promote unnecessary dependency upon the presence of the specialist. "More-is-better" proponents may support or practice any of the functions of related services personnel listed earlier (e.g., consultation, prevention, adaptation, remediation, and support to families). Professionals

who adhere to the "more-is-better approach" generally act out of genuine concern for students and also may be highly competent in their disciplines.

b. "Return-on-investment" approach. A second approach is the "return-on-investment" model. The "return-on-investment" supporter often acts based on the belief that resources are scarce. This belief seems to be substantiated by national and regional reports which indicate a growing shortage of related services professionals and large caseloads for those already employed. Given the scarcity of human resources to meet seemingly large needs, decisions must be made about how services are to be delivered, to whom, and toward what end. The "return-on-investment" proponent may reason that expertise must be provided to those students who will benefit most from specialized support services. "Return-on-investment" approaches can be discriminatory toward persons who have the most severe disabilities.

In locations where resources are scarce, the "return-on-investment" proponents may avoid recommending services for students with the most severe disabilities because they believe "it is a waste of time," and "they aren't going to amount to anything anyway." The dangers of this type of discrimination are obvious. Consumers may not think of the denial or termination of service as discriminatory when it is masked by the claim of professional expertise.

c. The "only-as-special-as-necessary" approach (Biklen, 1987). The "only-as-special-as-necessary" approach is rooted in the theory of normalization (Wolfensberger, 1977). In reference to the provision of related services in the schools, highly specialized therapeutic techniques and services may be viewed as stigmatizing events which serve to separate and isolate persons with disabilities. This concern was raised by members of Congress in the 1985 annual report on the implementation of P.L. 94-142. In this report, a question was asked regarding students with learning disabilities who were unnecessarily being

subjected to atypical and stigmatizing school experiences when placed in "special classes." The "only-as-special-as-necessary" proponent views students within the context of there environments and recognizes the interrelationships among the varied components of school programs. The "only-as-special-as-necessary" supporter advocates minimally intrusive approaches that are most likely to facilitate inclusion in typical school activities with nondisabled peers. The "only-as-special-as-necessary" supporter is likely to request specialized related services only when deemed absolutely necessary; consultative supports that meet the same functions as potentially more intrusive services are usually preferred. When specialized related services are provided, the "only-as-special-as-necessary" proponent advocates for services which are most normalized. For example, indirect services which are blended within the routine of typical daily activities would be pursued before a recommendation for the traditional, pull-out approach to the delivery of services would be made.

As students with severe disabilities increasingly become part of general attendance schools and classes, these therapy issues become more important as quality indicators. At times, the "only-as-special-as-necessary" proponent is criticized for devaluing the expertise and autonomy of disciplines. It is understandable why this perception might evolve since the "only-as-special-as-necessary" proponent is unlikely to accept recommendations for specialized and atypical services simply because a related service specialist has made such a recommendation. This may create friction among team members. The "only-as-special-as-necessary" proponent may be viewed as a threat and may be perceived negatively as questions about the value or mode of related service delivery are raised. The potential for conflict is greatest when the "only-as-special-as-necessary" supporter encounters the "more-is-better" proponent. In some instances, the "only-as-special-as-necessary" supporter and the "return-on-investment" proponent may end up in agreement about the services to be delivered, but for quite different reasons. The "only-as-special-as-necessary" proponent values the competencies of the related

service disciplines, but always views their involvement in the context of a broader scope. In this approach, skill development is viewed as a means to an end with the realization that the ends can be achieved in more than one way. The "only-as-special-as-necessary" proponent strives for the development of opportunities for maximal participation of persons with disabilities within the mainstream of community life.

***While the discussion of value systems was presented in terms of professionals, parents often enter the team process with equally strong values regarding the use of special services. Parents can pursue the "more-is-better" approach, as well as professionals. Ask if any parent participants would be willing to share the value systems they bring to team meetings and inquire if their values were influenced by the information presented.***

5. Approaches to Measurement

In addition to differences in value systems, another potential topic of disagreement between team members is selection of an evaluation system to measure student progress toward acquisition of a unified set of goals. Some related services professionals select evaluation measures that compare student progress with a standard derived from normal development. Other team members may recommend that each student's progress throughout the school year be measured relative only to that student's starting point for each goal. Regardless of the standard of comparison, it is recommended that team members test the effectiveness of their intervention strategies by quantitative and/or qualitative methods of data collection. Examples of quantitative measures include the duration of head erect behavior (e.g., in minutes) or the number of times a student reaches for a utensil during mealtime. An example of a qualitative method of data collection is measurement of a student's ability to activate a microswitch without excessive "overflow" of abnormal muscle tone to other parts of the body. More recently there has been an emphasis on evaluation that references student progress to his/her quality of life (Fabian, 1991; Giangreco, Cloninger, & Iverson, in preparation; Horner, 1991; Meyer & Janney, 1989).

Data collection can be a powerful and effective tool for evaluation of progress toward achievement of identified outcomes and to assist in decision-making. It is most effective when applied to relevant and well designed intervention or treatment plans.

**F. Training Activities**

1. Have participants indicate what types of teams they interact with at this time (e.g., no team, multidisciplinary, interdisciplinary, or transdisciplinary).

2. Have participants express their opinions on the roles they would like to assume within the team.

3. Have the participants select two priority educational activities that are relevant to a specific student (e.g., making purchases, communicating basic wants and needs, or expanding leisure skill repertoire) and then brainstorm potential input from the various disciplines in an integrated therapy model by asking the question, "What specialized knowledge or skills can be implemented by the classroom staff in the context of the lesson that will assist the student in attaining the objectives?"

**G. Scenario/Vignette**

Julie, age 15, attends Hamilton High School along with 465 other students. In addition to a moderate hearing and vision impairment, she experiences increased muscle tone due to cerebral palsy. As indicated in her Individualized Education Program (IEP), Julie receives related services from a physical therapist, a speech and language therapist, and itinerant vision teacher.

Each professional assesses Julie individually and plans a program based on those data. The specialists conduct their intervention plans in therapy rooms. For example, the physical therapist conducts range-of-motion exercises on Julie's upper and lower extremities three times a week for 30 minutes. The itinerant vision teacher works with the speech/language therapist, as well as Julie on using low vision aids to better view her communication board.

Mr. Fiorini, the Special Education Director for the school district, indicated that a team approach is utilized at Hamilton High School. He stated that each specialist writes goals and then shares them with the other team members at the annual IEP meeting.

After reading this scenario/vignette, have participants answer the following questions:

1. What type of service delivery model is being implemented?

2. What are some of the drawbacks to this approach?

3. What aspects of Julie's current service delivery system require modification to exemplify a transdisciplinary model with integrated therapy?

## V. Content - Part III: Characteristics and Benefits of a Transdisciplinary Approach

### A. Module Delivery Organization

1. Lecture Number: 3

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will receive information regarding benefits of the transdisciplinary team approach to education and habilitation for;

a. students with disabling conditions,

b. families of students with disabling conditions,

c. professional staff members,

d. school systems, and

e. the community.

### B. Content Overview Outline

1. Characteristics of a Team

2. Benefits of the Transdisciplinary Approach for Students

3. Benefits of the Transdisciplinary Approach for Families

4. Benefits of the Transdisciplinary Approach for Professionals

5. Benefits of the Transdisciplinary Approach for School Systems and the Community

## C. Suggested Readings for the Trainer


Albano, M., Cox, B., York, J., & York, R. (1981). Educational teams for students with severe and multiple handicaps. In R. York, W. Schofield, D. Donder, D. Ryndak, & B. Reguly (Eds.), *Organizing and implementing services for students with severe and multiple handicaps* (pp. 23-34). Springfield: Illinois State Board of Education.

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## D. Introduction to the Module, Part III

***Introduce participants to this portion of the module by displaying Overhead 12. Refer to it as you review topics with participants. Next, you may want to say: "For the next hour and a-half, we will focus on the benefits of the transdisciplinary service model including;***

1. ***Characteristics of a team***
2. ***Benefits for students***
3. ***Benefits for families***
4. ***Benefits for professionals***
5. ***Benefits for schools and communities"***

## E. Specific Content

***Ask participants to review the definition of "transdisciplinary" as you present the following information.***

1. Characteristics of a Team
   a. A team has two or more members who possess various skills that may serve different functions, thereby allowing the body of theory and skills of all team members to be expanded.

b. Team members develop a common framework and purposefully pursue a unified set of goals.

| |
|---|
| ***Provide an example here.*** |

c. Team members engage in problem-solving and collaborative activities to attain the unified set of goals.

d. Team resources are shared and allocated to attain the goals.

e. Interactions among team members are designed to complement each other and increase effectiveness.

f. The relative effectiveness of the team is judged by how well the group works together to achieve the unified set of goals.

| |
|---|
| ***From personal experiences, have participants share characteristics of groups that either had or did not have "team" characteristics as noted in the above information. For example, related to groups that worked effectively as teams, identify characteristics that contributed to their effectiveness.*** |

2. Benefits of the Transdisciplinary Approach for Students

There are three interrelated benefits of the transdisciplinary approach for students served. The first and most important benefit is that this model results in synthesized delivery of therapeutic techniques throughout the student's daily instructional routine. This pattern of service delivery differs from more traditional models in which a series of related services professionals conduct therapeutic techniques with a student separate from ongoing activities. The more consistent use of specialized techniques whenever and wherever they may improve function may enhance the therapeutic effect obtained from the various techniques.

The second benefit of this approach is highly related to the first in that specialized techniques are implemented on a longitudinal (i.e., long term) rather than episodic (i.e., occasional) basis.

The use of specialized techniques by the primary service provider (typically the teacher) all day, every day, may prove to be more effective than the same specialized technique implemented two or three times per week in isolation or in a nonfunctional context.

The third and final benefit of the transdisciplinary approach for students is a reduction in the number of adults who deliver direct services. Most therapeutic services are conducted by one (sometimes two or three) primary service providers. This arrangement reduces the possibility of inconsistent instruction across multiple team members.

3. Benefits of the Transdisciplinary Approach for Families

There are two primary benefits of the transdisciplinary model for families. The first is a reduction in the number of professionals with whom the family must interact. A primary service provider is selected for each student. This professional (sometimes called a case manager) coordinates the contributions of all team members over all educational programs of students. Also, the case manager often serves as the primary link to the family.

The case manager is in a unique position to interpret each student's set of unified goals for parents and other family members. Other team members are available, however, at the request of family members.

The second benefit for families is the likelihood that they too will have the opportunity to learn specialized knowledge and skills from a variety of disciplines. Family members may incorporate these new skills into home and community activities as appropriate.

4. Benefits of the Transdisciplinary Approach for Professionals

The primary benefit of the transdisciplinary approach for professionals is the opportunity to be

ongoing "learners" through their interactions with families and professionals from other disciplines. Team members may learn disciplinary knowledge and skills from one another and may also enhance their interpersonal communication skills though the dynamics of the team process.

5. Benefits of the Transdisciplinary Approach for School Systems and Communities

Finally, the transdisciplinary model may also be of benefit to school systems and the community. This model is inherently more flexible than direct service models thereby reducing school or class scheduling conflicts. Additionally, the negative effects of staff turnover or vacancies may be minimized because the specialized knowledge and skills of each team member have been shared.

**F. Training Activities**

1. Have a teacher, parent, related service professional, or student who has positive experiences with transdisciplinary teams speak to the group.

2. Have participants share personal experiences indicating how transdisciplinary team experiences benefitted their student, child, or themselves (i.e., if any participants have been involved in transdisciplinary service delivery).

3. Have participants discuss ways to approach school officials about entertaining the idea of developing more transdisciplinary approaches in the school.

**G. Scenario/Vignette**

Brad is 14-years-old. He had attended Grover Cleveland Junior High School for the past two and one-half years. Brad has a severe vision impairment, a moderate hearing impairment, a seizure disorder, and cerebral palsy. Brad receives services from an occupational therapist, a mobility

instructor, a physical therapist, and a speech/language therapist. These four specialists meet with the special education teacher, general education teachers, and Brad's mother on a regular basis to discuss Brad's progress and to develop new goals when appropriate.

All of the team members share assessment data and plan a program that can be implemented in the classroom or in the context of a natural routine (e.g., a community-based instructional site). Team members share their expertise and train others to carry out programs where appropriate. This results in a more holistic program for Brad.

For example, the physical therapist recommended that range of motion exercises be conducted on Brad's upper extremities prior to activities that required Brad to use his hands. She further recommended that he bear weight in a standing position on a daily basis in order to prevent hip dislocation. This could be accomplished by having Brad use a prone stander during two, 30-minute instructional periods each day when this would typically occur, such as standing at a counter in home economics class. The occupational therapist developed an adapted switchplate for Brad since he did not have isolated finger use. This could be attached to various small appliances (e.g., tape recorders, blenders, and a record player) so that Brad could activate a piece of equipment by using a downward movement of his hand. The mobility specialist felt that Brad needed to learn to use his residual vision in the functional context of transitions and transfers. Brad's teachers and mother were very much in favor of his interacting with nondisabled peers since they were well aware of the benefits from such interactions. Their goal was to have Brad interact on a daily basis with a his junior high classmates. The speech/language therapist suggested that Brad greet individuals by orienting toward them and smiling, and to follow simple verbal instructions within the context of a variety of social and instructional situations.

The team decided that all of these particular goals could be worked on throughout the school day. A peer interaction program was established with students from the junior high study hall. Several students who were free during that time period were scheduled to interact with Brad using leisure

activities appropriate for teenagers. Prior to the program, the classroom teacher carried out range-of-motion exercises on Brad's upper extremities to produce relaxation; this enhanced his arm use. Upon arrival and greeting by his junior high school friend, Brad was taught to look in the direction of his friend and smile in order to greet him. Then they engaged in an activity together in which Brad used the adapted switchplate. For example, Brad used a tactile scan to locate the switchplate followed by activation of the tape recorder. While conducting these activities Brad was taught to respond to a simple command from his friend, "It's your turn. Hit the switch." This verbal instruction was accompanied by a touch cue on Brad's wrist. The classroom teacher designed the instruction and supervised implementation of the program by his peers.

After reading the above scenario/vignette, have participants answer the following questions:

1. What type of service delivery model was being employed at Grover Cleveland?

2. What were some of the benefits of this approach?

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100 North First Street
Springfield, IL 62777

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Cost of book: $39.00

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Stillwater, OK 74078

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499 C Waterman Building
University of Vermont
Burlington, VT 05405

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Cost of book: $4.00

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The G. Allan Roeher Institute
Kinsman Building, York University Campus
4700 Keele Street
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Phone number: (416) 661-9611

Cost of book: $12.50

## VIII. Evaluation Measures

### A. Pre/Post Evaluation

**Related Services and the Transdisciplinary Approach:**
**Parent and Service Provider Training Module**

*Giangreco & Eichinger*

Name _____ Pre _____

Date _____ Post _____

# Points Possible: 20

Length of Time Allowed: 30 minutes

1. Briefly state three reasons why the role of family members is important to service delivery for students with dual sensory and multiple disabilities. (3 pts.)

2. Select two of the following six team members and state three roles performed by each of these team members: (6 pts.)
   a. Teacher
   b. Occupational Therapist
   c. Physical Therapist
   d. Parent
   e. Orientation and Mobility Instructor
   f. Speech/Language Therapist

3. What is meant by "Related Services" as specified in PL 94-142? (2 pts.)

4. Provide a brief description of what is meant by two of the following three types of related service delivery approaches: (3 pts.)
   a. Multidisciplinary
   b. Interdisciplinary
   c. Transdisciplinary (or Integrated Therapy)

5. State three benefits of the transdisciplinary (or integrated therapy) approach for students. (3 pts.)

6. State three benefits of the transdisciplinary (or integrated therapy) approach for families. (3 pts.)

**B. Answer Key**

1. Any three of the following reasons should be considered correct.

   a. Families know certain things about their children or youth better than anyone else.
   b. Families have the greatest vested interest in seeing their children or youth learn.
   c. Families are likely to include the only adults involved with the educational or therapeutic programs of their children or youth throughout their entire school careers.
   d. Families have access to information about capabilities of their children or youth in home and community settings to which others have no access.
   e. Families have the ability to influence the quality of educational services provided in their community.
   f. Families must live with the outcomes of decisions made by educational or therapeutic teams 24 hours a day, 365 days a year.

2. Any three roles of two team members listed below should be considered correct.

   a. Teacher:
      i. develops and implements educational programs;
      ii. synthesizes information from all team members;
      iii. organizes the classroom environment;
      iv. determines types of instructional arrangements and groupings;
      v. provides systematic instruction;
      vi. develops opportunities for interactions with nondisabled peers; and/or
      vii. trains and supervises paraprofessional staff.

   b. Occupational therapist:
      i. evaluates and intervenes with problems relating to functional performance of individuals with disabilities;
      ii. develops proper seating arrangements;
      iii. develops positioning and handling strategies;
      iv. designs adaptive equipment;
      v. designs handsplints and other orthotic devices;
      vi. teaches self-care skills;
      vii. teaches daily living skills;
      viii. develops feeding programs
      ix. develops handwriting activities; and/or
      x. works on various fine motor activities.

   c. Physical therapist:
      i. develops seating arrangements;
      ii. develops positioning and handling strategies;
      iii. provides gait training;
      iv. provides mobility instruction including wheelchair or walker use;
      v. selects appropriate adaptive equipment;
      vi. promotes movement facilitation;
      vii. maintains joint flexibility by conducting range of motion exercises;
      vii. develops gross motor programming;
      ix. promotes cardiovascular and cardiomuscular fitness; and/or
      x. provides skin care to avoid skin breakdown.

   d. Parent:
      i. specifies educational and functional priorities;
      ii. reports child or youth's skill levels in home and other nonschool environments;
      iii. identifies student's preferences;
      iv. highlights child or youth's strengths;

v. articulates the family's aspirations and dreams for the student in the future;
vi. provides historical information that would affect planning; and/or
vii. offers additional input to school personnel.

e. Orientation and mobility instructor:
i. teaches protective techniques;
ii. teaches search techniques;
iii. teaches orientation to the physical environment safely;
iv. teaches concept development; and/or
v. recommends travel aids and equipment adaptations.

f. Speech/language therapist:
i. determines child or youth's present level of functioning relative to communication skills;
ii. makes recommendations regarding communication program for the student; and/or
iii. recommends feeding programs and other activities related to oral motor functions.

3. Any definition that contains the following key points should be considered correct (key points are underlined).

"The term 'related services' means transportation and such developmental, corrective, and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a child or youth with disabilities to benefit from special education, and includes the early identification and assessment of disabling conditions in children and youth."

4. Any two of the following should be considered correct.

a. A multidisciplinary approach is based on the medical model. Under this model, professionals from each discipline assess and provide service to children and youth in isolation.

b. An interdisciplinary model is characterized by communication among the various professionals regarding a particular student. However, program implementation remains isolated within this model; that is, each professional provides intervention specific to his discipline.

c. The transdisciplinary model is characterized by collaboration among the various team members to develop mutual goals for the student. Inherent in this approach is the fact that the child or youth is viewed as a complete person. Thus, this approach is more holistic. In addition, there is role release in this model. Specialists provide training to other persons who are not members of that discipline to implement the specialized services; therefore, services are provided in an indirect rather than a direct manner. Parents are viewed as equal team members in a transdisciplinary approach.

The integrated therapy approach is a variation of the transdisciplinary approach which extends the role release and shared focus foundation of the transdisciplinary model by suggesting that the team planning apply disciplinary expertise to the shared goals. Furthermore, the therapeutic techniques are implemented in a synthesized manner within functional activities in instructional or natural contexts (e.g., grocery stores, work settings, or functional skill routines in the classroom).

5. Any three of the following benefits should be considered correct.

a. Provides specialized input in a synthesized manner.

b. Supports the student's educational program.
c. Minimizes the stigma of "pull out" therapy or help.
d. Is longitudinal in nature.
e. Limits to three or less the number of professionals with whom the student must interact.
f. Creates more time for consultation which previously was spent in direct therapy.
g. If age-appropriate, includes the student in decision-making.

6. Any three of the following should be considered correct.

a. Includes family members as part of the team.
b. Provides a support mechanism.
c. Limits the number of professionals with whom the family must interact on a regular basis.
d. Encourages decentralization (bringing the services to the students) which can result in home district placement (rather than a regional center) thus enhancing family access to the school program.
e. Encourages a natural environmental approach which includes analysis of home and community needs which families face.
f. Decreases excessive dependency of families on the presence of a specialist, since the family has learned how to incorporate specialized techniques within routine home and community activities.

C. Participant Evaluation of Training

## A Series of Training Modules on Educating Children and Youth with Dual Sensory and Multiple Impairments

# Participant Evaluation of Training

Related Services and the Transdisciplinary Approach:
Parent and Service Provider Training Module

Trainer: _____ Date of Training: _____

Training Site: _____

Please read each of the following statements carefully and rate each statement using the following key:

| | | | |
|---|---|---|---|
| 1 = Strongly Disagree | (SD) | 4 = Agree | (A) |
| 2 = Disagree | (D) | 5 = Strongly Agree | (SA) |
| 3 = Undecided | (U) | | |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 1. | Overall, the content of this training met my expectations. | 1 | 2 | 3 | 4 | 5 |
| 2. | I learned useful information about roles and functions of various team members when working with students who have dual sensory and multiple impairments as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 3. | I learned useful information about implications of the "Related Services" section of Public Law 94-142 as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 4. | I learned useful information about major types of service delivery models used in schools and the benefits of a transdisciplinary approach as a result of this training. | 1 | 2 | 3 | 4 | 5 |
| 5. | The training provided specific information that I can apply. | 1 | 2 | 3 | 4 | 5 |
| 6. | The training content was applicable to my needs as a parent or service provider. | 1 | 2 | 3 | 4 | 5 |
| 7. | Materials available from this training were relevant and beneficial. | 1 | 2 | 3 | 4 | 5 |
| 8. | The trainer demonstrated competence in the areas of related services and service delivery models. | 1 | 2 | 3 | 4 | 5 |

| | | (SD) | (D) | (U) | (A) | (SA) |
|---|---|---|---|---|---|---|
| 9. | The trainer communicated clearly and effectively. | 1 | 2 | 3 | 4 | 5 |
| 10. | The trainer was responsive to the questions and needs of participants. | 1 | 2 | 3 | 4 | 5 |
| 11. | The trainer encouraged active involvement by participants and was able to facilitate group discussion. | 1 | 2 | 3 | 4 | 5 |
| 12. | The trainer was able to effectively present information through utilization of a multisensory approach (i.e., lecture, activities, overheads, handouts, readings, or videos.) | 1 | 2 | 3 | 4 | 5 |

13. After participating in these training activities, what ways do you plan to implement what you learned from these sessions?

14. What were the strengths of this training?

15. What follow-up needs can you identify for yourself?

16. In what ways could these training activities have been improved?

## Appendix A

## Overhead Transparencies

# CONTENT OUTLINE

1. Families as Consumers of Professional Services

2. Functions of Educators and Related Service Professionals

3. Roles and Responsibilities of Team Members



(Overhead 1)

# FUNCTIONS OF TEAM MEMBERS

a. Development of adaptations.

b. Facilitation of relevant academic and functional skills.

c. Reciprocal consultation with colleagues.

d. Removal or modification of barriers to participation.

e. Prevention of regression or pain.

f. Support and resource to families.

g. Remediation or restoration of identified deficits.

h. Promotion of sequenced developmental skills.

i. Assessment and subsequent educational program or therapeutic development, implementation, and evaluation.

j. Consensus decision-making.



(Overhead 2)

# COMMON TEAM MEMBERS

1. Occupational Therapist (OT)

2. Orientation and Mobility Instructor (O & M)

3. Parent

4. Physical Therapist (PT)

5. Speech/Language Therapist

6. Teacher



(Overhead 3)

# COMMON AREAS OF ROLE OVERLAP

NOTE: The following overlaps are meant to familiarize the user with common areas of overlap. This is not intended to provide a comprehensive list of overlaps.

| | Occupational Therapist | Orientation & Mobility | Parent & Family | Physical Therapist | Speech Therapist | Teacher |
|---|---|---|---|---|---|---|
| Occupational Therapist | | making adaptations | making adaptations | making adaptations; seating; positioning; handling; equipment; physical management | feeding; other oral programs; posture | making adaptations; teaching self-care, daily living, recreational, and vocational skills |
| Orientation & Mobility | making adaptations | | making adaptations; reporting skill levels in nonschool settings; teaching domestic and community skills | mobility training | pragmatic language usage in community settings | making adaptations; teaching travel, domestic, and community skills |
| Parent & Family | making adaptations; teaching daily living skills | making adaptations; reporting skill levels in nonschool settings | | making adaptations; motor development | feeding; communication development | making adaptations; teaching daily living, community, domestic, recreational, communication, and social skills |
| Physical Therapist | making adaptations; seating; positioning; handling; equipment; physical management | mobility training | making adaptations; motor development | | breathing; posture | making adaptations; motor programming |
| Speech Therapist | feeding; other oral programs; posture | pragmatic language usage in community settings | feeding; communication development | breathing; posture | | communication; pragmatic language usage |
| Teacher | making adaptations; teaching self-care, daily living, recreational, and vocational skills | making adaptations; teaching travel, domestic and community skills | making adaptations; teaching daily living, community, domestic, recreational, communication and social skills | making adaptations; motor programming | communication; pragmatic language usage | |

(Overhead 4)
(Giangreco & Eichinger, 1989)

# CONTENT OUTLINE

1. The Definition and Interpretation of "Related Services" from PL 94-142

2. Forms of Team Interactions

3. The Mislabeling of Teams

4. Attitudes of Team Members

5. Approaches to Measurement



(Overhead 5)

# THREE FORMS OF GROUP INTERACTIONS

a. Multidisciplinary

b. Interdisciplinary

c. Transdisciplinary (or Integrated Therapy)



(Overhead 6)

# MULTIDISCIPLINARY

- Individualized assessments conducted by each member.
- Meet as a group to share information.
- Each member remains independent.
- Information exchanged is based on disciplinary biases.



(Overhead 7)

# INTERDISCIPLINARY

- Case manager assigned to coordinate program

- Encourages reciprocal communication.

- May result in conflicting recommendations by members.



(Overhead 8)

# TRANSDISCIPLINARY (OR INTEGRATED THERAPY)

- Collaboration is based upon shared goals.
- Systematic transfer and sharing of information among members (i.e., "role release").
- Minimizes the number of people interacting with a particular student.
- Student is viewed in the context of the environment.
- Consumers are full members of the team.



(Overhead 9)

# INTEGRATED THERAPY (A VARIATION OF THE TRANSDISCIPLINARY MODEL)

- Incorporates educational and therapeutic methods to cooperatively plan for common needs and goals.

- Implementation is synthesized and occurs within functional activities in natural environments.

- Reported as a best practice for students with dual sensory and multiple impairments.



(Overhead 10)

# ATTITUDES OF TEAM MEMBERS

a. "More-is-Better"

b. "Return-on-Investment"

c. "Only-as-Special-as-Necessary"



(Overhead 11)

# CONTENT OUTLINE

1. Characteristics of a Team

2. Benefits of the Transdisciplinary Approach for Students

3. Benefits of the Transdisciplinary Approach for Families

4. Benefits of the Transdisciplinary approach for Professionals

5. Benefits of the Transdisciplinary Approach for School Systems and Communities



(Overhead 12)

## Appendix B

## Handouts

# RESOURCES FOR INFORMATION REGARDING PROFESSIONAL AND SUPPORT ORGANIZATIONS

**For more information regarding occupational therapy contact:**

American Occupational Therapy Association (AOTA)
1838 Piccard Drive
Rockville, MD 20850
Phone: (301) 948-9626

**For more information regarding visual impairments contact:**

American Foundation for the Blind, Inc.
15 West 16th Street
New York, NY 10011
Phone: (312) 620-2000

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National Association for the Visually Handicapped
305 E. 24th Street
New York, NY 10010
Phone: (212) 889-3141

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Association for Education & Rehabilitation of the Blind & Visually Impaired
Division for Orientation & Mobility
206 North Washington Street
Alexandria, VA 22314
Phone: (703) 548-1884

**For information about families of persons with disabilities contact:**

The Sibling Information Network
Connecticut's University Affiliated Facility
991 Main Street
East Hartford, CT 06108
Phone: (203) 486-3783

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National Information Center for Handicapped Children & Youth
P.O. Box 0492
Washington, DC 20013
Phone: (703) 893-6061

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Federation for Children with Special Needs
312 Stuart Street, 2nd Floor
Boston, MA 02116
Phone: 482-2915

**A magazine devoted to practical information for families is:**

The Exceptional Parent
605 Commonwealth Avenue
Boston, MA 02115
Phone: (617) 536-8961

**For more information regarding physical therapy contact:**

American Physical Therapy Association (APTA)
1111 North Fairfax Street
Alexandria, VA 22314
Phone: (703) 684-2782

**For more information regarding speech/language therapy contact:**

American Speech, Language, and Hearing Association (ASHA)
10801 Rockville Pike
Rockville, MD 20852
Phone: (301) 897-5700 or (800) 636-6868

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Alexander Graham Bell Association for the Deaf, Inc.
3417 Volta Place, NW
Washington, DC 20007
Phone: (202) 337-5220

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National Association for the Deaf
2025 Eye Street, NW
Suite 321
Washington, DC 20006
Phone: (301) 587-1788

**For information regarding education contact:**

Council for Exceptional Children (CEC) or
ERIC Clearinghouse on Handicapped & Gifted Children
1920 Association Drive
Reston, VA 22091-1589
Phone: (703) 620-3660

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National Clearing House of Rehabilitation Training Materials
Oklahoma State University
Stillwater, OK 74078
Phone: (405) 744-7650

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The Association for Persons with Severe Handicaps (TASH)
7010 Roosevelt Way N.E.
Seattle, WA 98115
Phone: (206) 523-8446